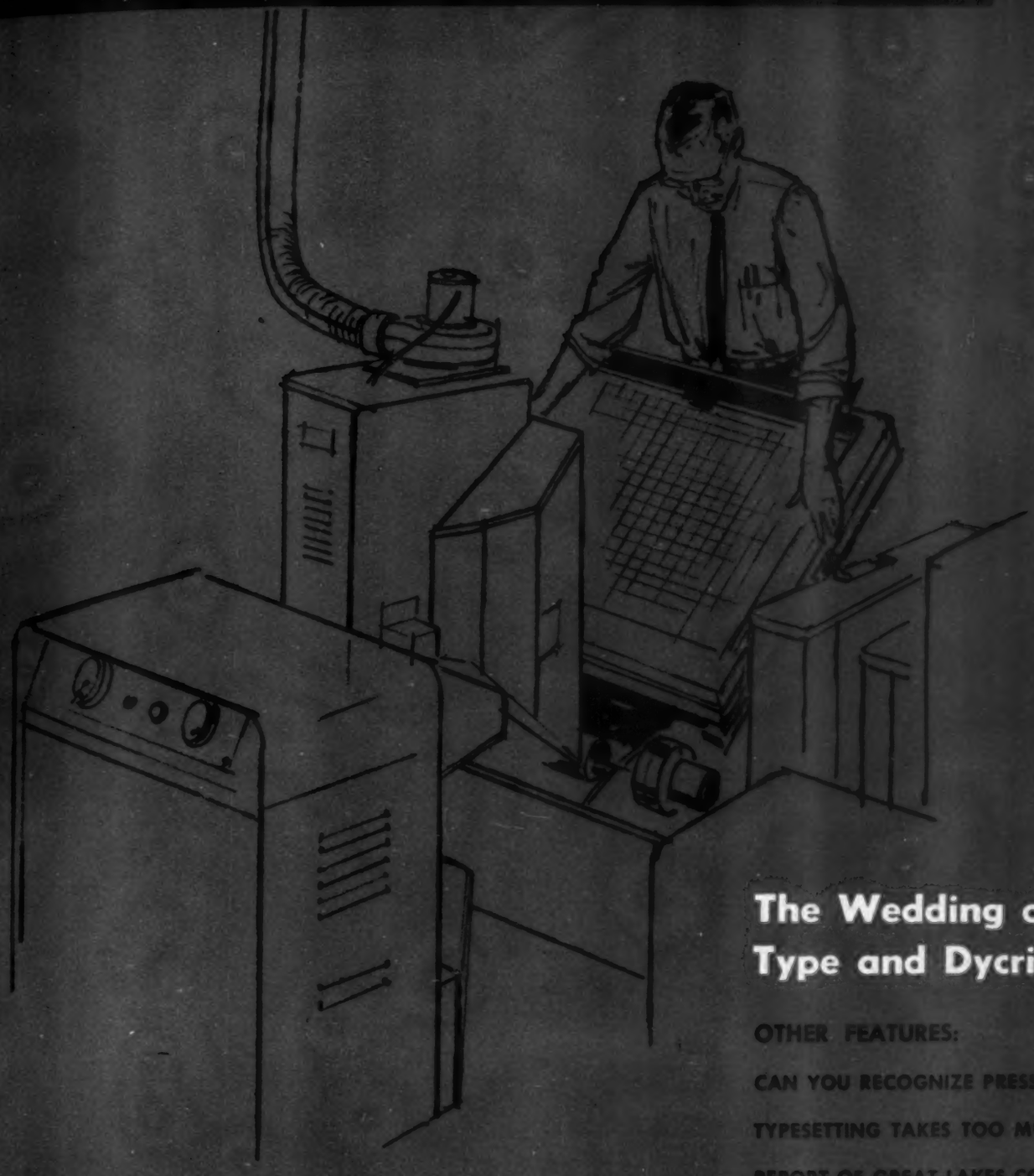
PRINTING PRODUCTION

FEBRUARY 1961



The Wedding of Type and Dycril Plates

OTHER FEATURES:

CAN YOU RECOGNIZE PRESS ROLLER TROUBLES?

TYPESETTING TAKES TOO MUCH TIME

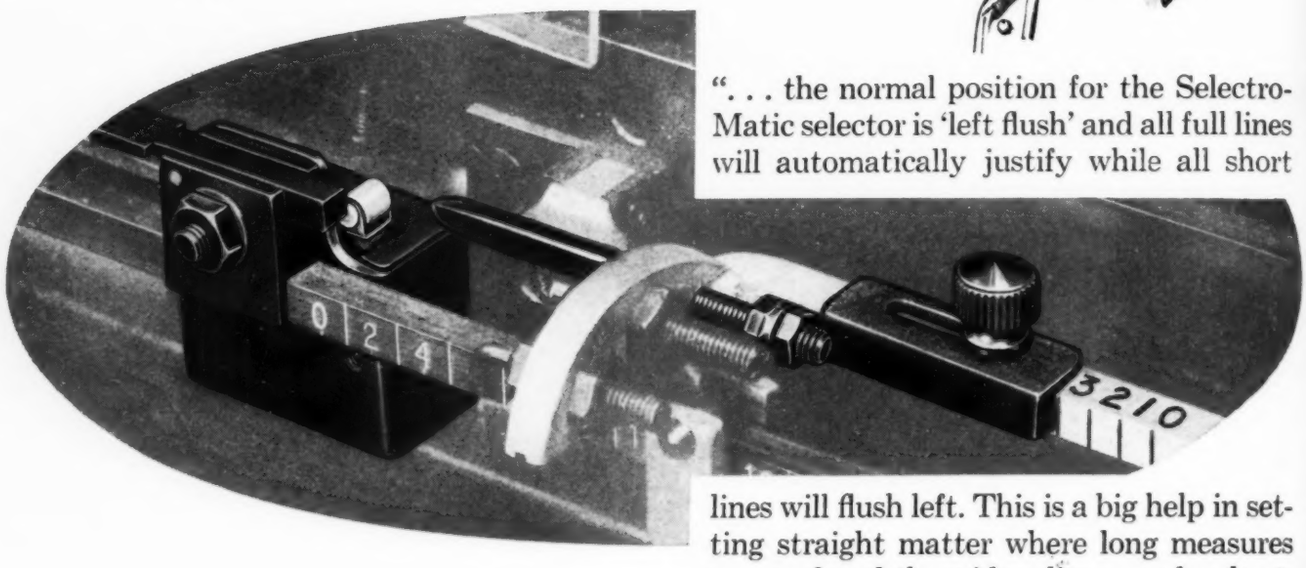
REPORT OF GREAT LAKES CONFERENCE

DEVELOPMENT OF SPECIAL PRESS LUBRICANTS

THE PRODUCTION MAGAZINE FOR PRINTERS AND LITHOGRAPHERS

HOW DOES THE "SHORT LINE DEVICE" ON THE STAR QUADDER SAVE?

IT AUTOMATICALLY QUADS SHORT LINES ...YOU SEE...



"... the normal position for the Selectro-Matic selector is 'left flush' and all full lines will automatically justify while all short lines will flush left. This is a big help in setting straight matter where long measures are used and the widow line may be short. An operator doesn't have to set quads to fill the white space. This Star feature works for other quadding positions as well. In centering or flushing a list of names, for instance, the selector button is pushed and remains in position until the job is completed. All full lines will justify, and all short lines quad automatically."

If you would like more information about how the Star Selectro-Matic Quadder can serve you, write for complete information.

STAR PARTS, Inc.

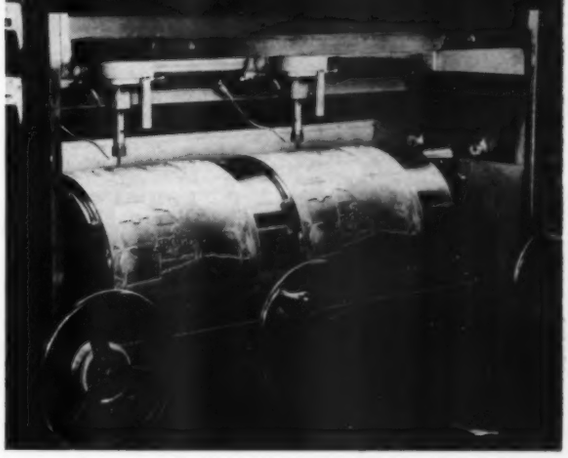
SOUTH HACKENSACK, N. J.

BRANCH: 1327 BROADWAY, KANSAS CITY, MO. **AGENCIES:** CHICAGO • MINNEAPOLIS • LOS ANGELES • DENVER SO. ACTON, MASS. • STAR PARTS (LINECASTING) CANADA LTD. MONTREAL AND AGENTS OVERSEAS

Precision TRADE ★ MARK Parts

For More Information Circle 167 on Reader Service Card

"OK"



CINCINNATI ENQUIRER:

"Our new Sta-Hi Twin-Plate Router has met every requirement and hope we had for it. Because of the ease of working the router and the smooth performance of the machine, the stereotypers have readily accepted it as a great improvement."

H. E. Drafahl, Production Manager

INDIANAPOLIS NEWSPAPERS:

"The Sta-Hi Twin-Plate Router has proved a very satisfactory addition to our operation. Maintenance has been a very small item and, in our opinion, the unit has been engineered exceptionally well. We are more than happy with this equipment."

John E. Innis, General Foreman
Stereotype Department

OKLAHOMAN & TIMES:

"We have used the Twin-Plate for over a year and are happy to tell you it has met every production requirement we thought it would. Color plate routing is no longer a bottle-neck in our stereotype department. The Twin-Plate has cut this routing time by almost half. We are entirely satisfied with this well-designed machine."

Robert H. Spahn, Production Manager

SALT LAKE CITY NEWSPAPERS:

"The Twin-Plate Router is a wonderful addition to our stereotype department . . . It is living up to all expectations. We wonder how we have managed to get along without it. It is a very fine piece of equipment."

Milton A. Brown, Production Manager

SAN DIEGO UNION & TRIBUNE:

"The Twin-Plate Router is doing a fine job for us... The operators have developed a high degree of skill in a very short time and appear to like to work with the machine...In short, we are quite satisfied that the Twin-Plate Router will do all that was claimed for it."

B. G. Burke, Production Manager

TULSA WORLD & TRIBUNE:

"We and our complete stereotype personnel are well pleased with the Twin-Plate Router. We have eliminated the bottle-neck which long existed in our routing of color plates, the operation which used to cause us much overtime in the stereotype department...We will say we made a good buy."

O. M. Harper, Mechanical Superintendent

STA-HI CORPORATION

ASHINGTON BOULEVARD WHITTIER, CALIFORNIA

For More Information Circle 165 on Reader Service Card

Hy Safran, President
Safran Printing Company, Detroit

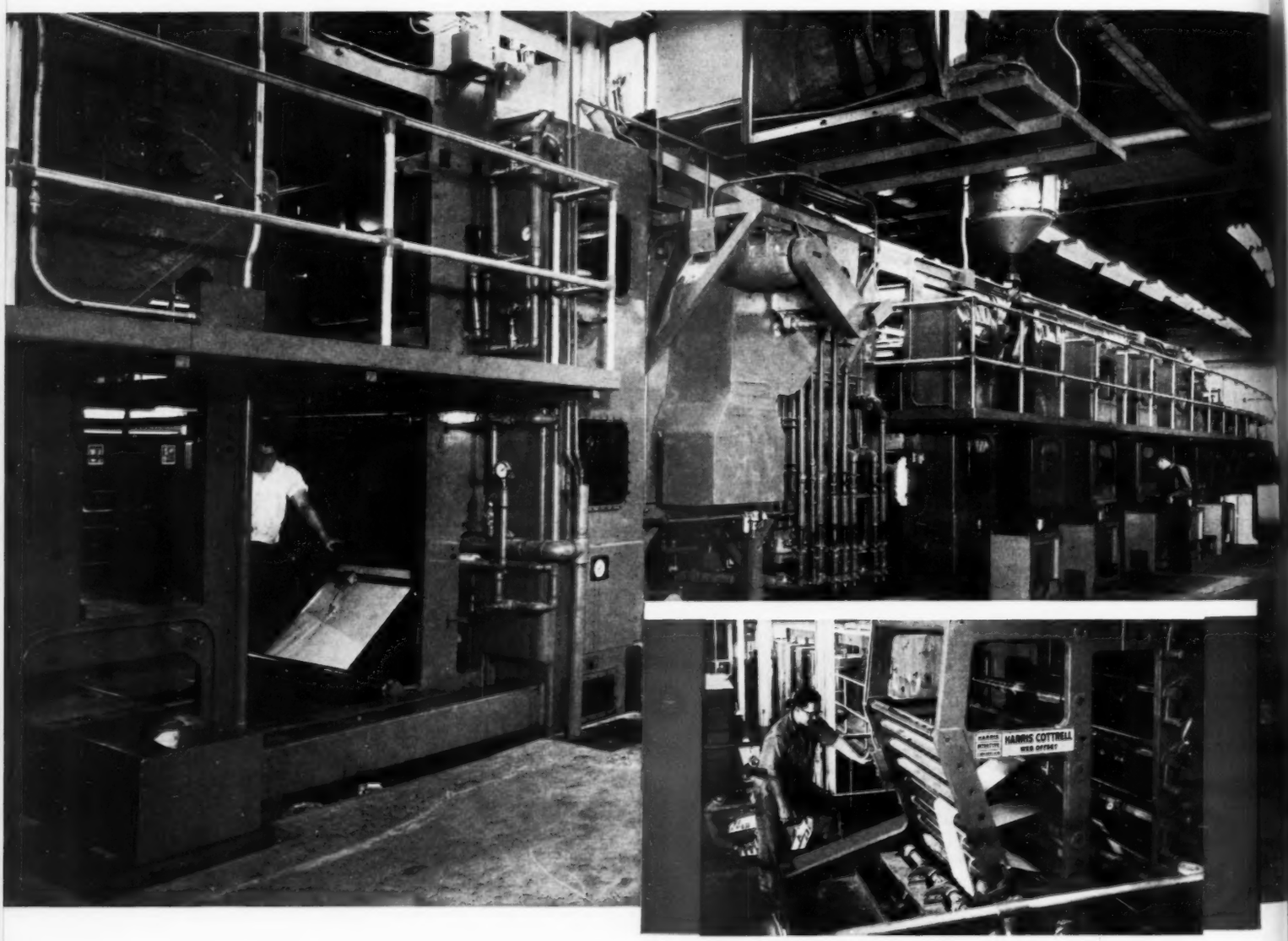
What Hy Safran has to say ABOUT THE NEW HARRIS-COTTRELL 35 x 50" WEB OFFSET

"This web offset was just what we needed to increase the over-all versatility of our plant and to place even greater emphasis on quality, high-speed specialization.

"Highly important to us in our selection of Harris-Cottrell's new press was the productive jaw folder (shown inset) that handles runs of 1200 feet per minute—ideal for our specialized publication printing. And with the 50-inch web width, we expect to get over 24,000 64-page, 8½ x 11" signatures per hour . . . for top-quality work, that's really producing!"

★ ★ ★

This new Harris-Cottrell 5-unit, 10-color perfector is an all-around press for medium-to-long runs . . . and with its choice of two folders, is a versatile press in terms of products produced. It's the first in a new size range from Harris-Cottrell, and a major step toward rounding out our fast-growing web offset line. ■ Perhaps a Harris-Cottrell web offset 35 x 50" (or our smaller 22¾ x 38") can open up a whole new field of business for *you*.



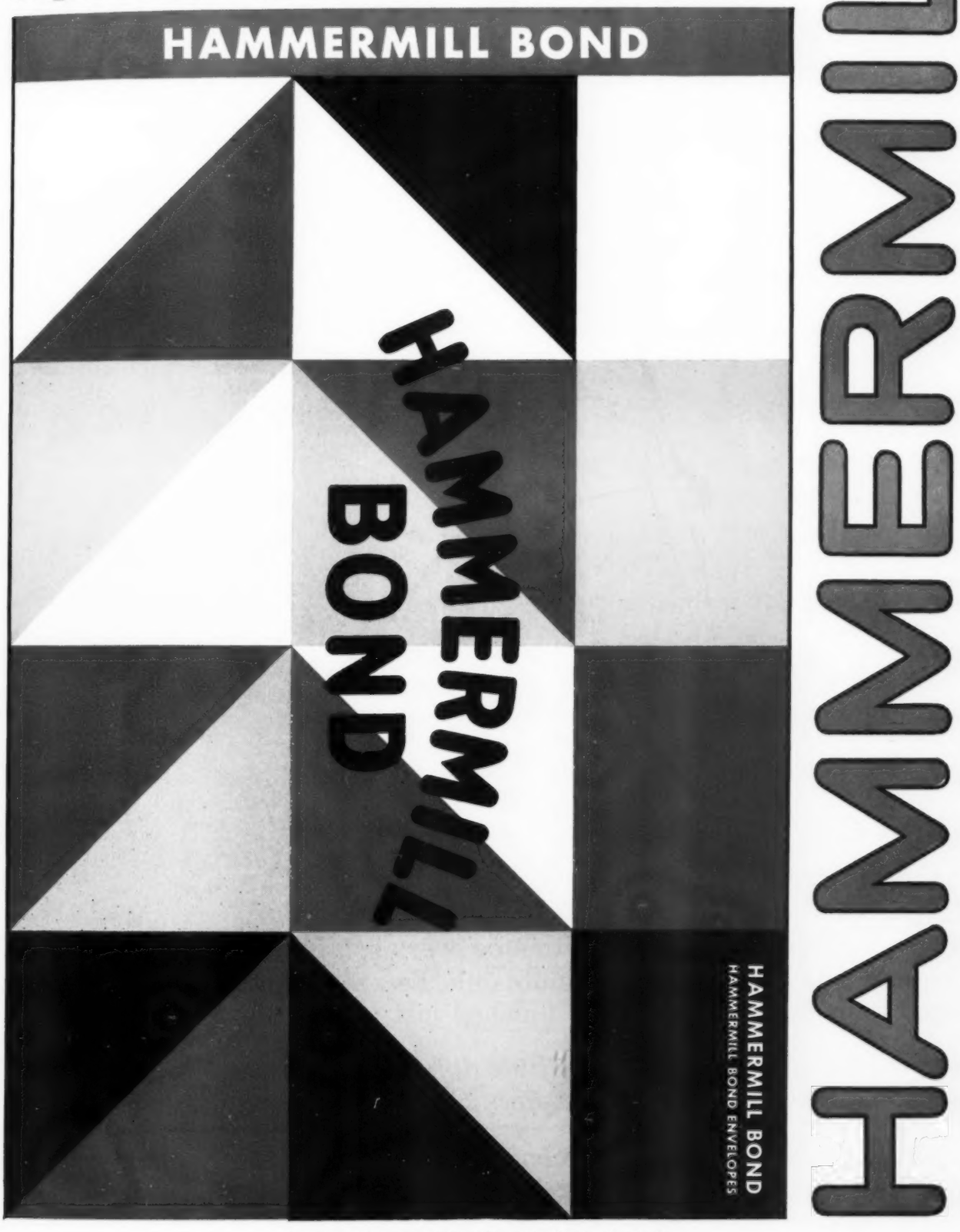
HARRIS INTERTYPE CORPORATION

THE COTTRELL COMPANY
A Subsidiary of Harris-Intertype Corporation
17 Mechanic Street, Westerly, Rhode Island

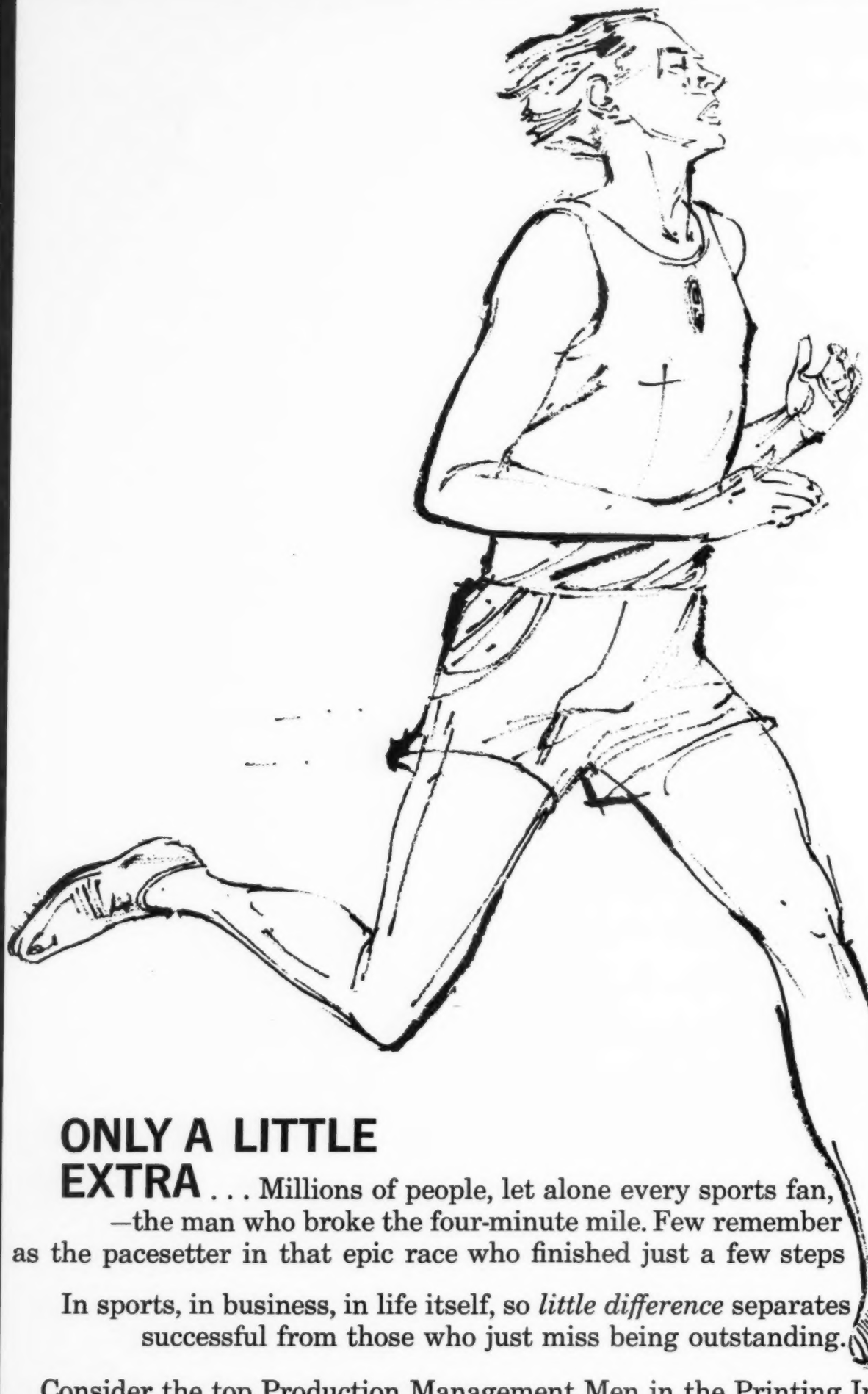
For More Information Circle 45 on Reader Service Card

IS THIS SAMPLE BOOK IN YOUR FILE?

Or is it on your desk, ready for action? If you don't own a copy of this useful book, just call your Hammermill Merchant. Or write directly, on your business letterhead, to Hammermill Paper Company, 1614 East Lake Rd., Erie 6, Pa.



For More Information Circle 83 on Reader Service Card



ONLY A LITTLE EXTRA . . .

Millions of people, let alone every sports fan, know Roger Bann
—the man who broke the four-minute mile. Few remember Chris Chataway,
as the pacesetter in that epic race who finished just a few steps behind Bannister

In sports, in business, in life itself, so *little difference* separates the really successful from those who just miss being outstanding.

Consider the top Production Management Men in the Printing Industry.
Frequently its just a *little extra,* practical knowledge that makes them successful.
Most of these men read this magazine. They know it provides
sound ideas because it is the *only* publication edited specifically for them.

PRINTING PRODUCTION *Mag*

FEBRUARY 1961
VOL. 91, NO. 5

PRINTING PRODUCTION

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in all major processes of the Graphic Arts industry.

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PRINTING PRODUCTION is published monthly at 1276 West Third St., Cleveland 13, Ohio. © 1961 by Willsea Publishing Company.

Subscription rates in United States: One year, $5.00; two years, $8.00; three years, $10.00. Canada and U. S. Possessions: One year, $5.50; two years, $8.50; three years, $11.00. All other countries: One year, $10.00; two years, $16.00; three years, $20.00, in advance. Single current issues, 50c; back issues, 75c. December *Where To Buy* Printing Equipment and Supplies Reference Issue, $2.50 in United States; $3.50 outside United States. All foreign subscriptions payable in U. S. funds.

Member Publications BPA Business Audit

Accepted as Controlled Circulation Publication at Cleveland, Ohio.

PRINCIPAL ARTICLES

40 Wedding of Type and Dycril is a Happy Venture
By HAVILAND F. REVES

44 Typesetting Takes Too Much Time
By FRANK DeWITT

46 Can Your Men Recognize Roller Troubles on the Press?

48 Great Lakes Newspapers Bear Down on Production
By EDWARD H. OWEN and MacD. SINCLAIR

52 Talented Youth Capture Printing Week Spotlight
By DEANNA MIHALICK

54 Help Preserve Machinery with Specialized Press Lubricants
By H. A. STAUFFER

60 Operators Can't Sneak Loose-Tight Lines Thru Comet
By R. D. FISHER

80 Analyze Your Plant's Engraving Techniques
By C. HAROLD LARSSON

REGULAR DEPARTMENTS

Letters to the Editors, 6
News Items, 10
Printing Industry Meetings, 22
Helpful Literature, 36
Editorial Page, 39
Research Activities, 62
Idea File, 72
Patents for Printing Industry, 97
Books for the Printing Industry, 107
Advertisers' Index, 110
Graphic Views, 112

EQUIPMENT & SUPPLIES

Web Offset Publication Press, 84
Slitting Control Attachment, 84
Electric Proof Press, 84
Signature Inserter, Auto-Feed, 86
Polychrome Layout Ruler, 86
Photographic Proofing Paper, 86
Vandercook Repro Proof Press, 88
Pneumatic Paper Roll Mandrel, 88
Web Offset for Small Newspapers, 88
Single Solution Developer for Litho, 88
nuArc Stripping Table, 89
Kodak Products for Phototypesetting, 89
Multi-Headed Pneumatic Stapler, 89
28 in. by 28 in. Process Camera, 90
Fountain Agitator for Magnetic Ink, 90
Films and Plates for Graphic Arts, 90
Electronic Web Break Detector, 90
Diaphragm Type Power Unit, 92
Automatic Flying Plaster, 92
Process Color Camera, 92
Storage Cabinets for Offset Materials, 92
Single Phototypesetting Machine, 94
Royal Ortho Available on Plates, 94

THE COVER illustration is taken from an actual photo showing part of the Dycril platemaking facilities at Michigan Typesetting Co. in Detroit. The equipment is a standard Dycril exposure unit. It is not unfamiliar now to hear of a trade composition plant which includes platemaking in its services. We chose the above company for the story on page 40 to show PRINTING PRODUCTION readers how this wedding took place and the compatibility of the two operations under one roof. A plant which can handle the job from typesetting to finished plate can offer convincing arguments to the letterpress and litho buyer of such material.

LETTERS
TO THE EDITORS

Battle of the Ad Facts

This is a reply to Maurice H. Annenberg's criticism (December 1960, page 8) of the figures used in your October issue editorial to illustrate the trend away from print advertising in favor of broadcast media. He seems to have missed the points you made.

It is a fact that the 11 leading advertising agencies spent 53.19% for print media in 1959. The fact was accurately stated. Mr. Annenberg offered his interpretation of *why* these agencies shifted the balance of their expenditures from print to broadcast media. This is an opinion, not fact. The fact is that, for whatever reason, leading advertisers and agencies that formerly spent more for print advertising are now spending more for broadcast advertising. The figures do not lie.

The second point is not that advertisers and agencies spend more money for print advertising, in all media, than they do for broadcast media. This fact is well-known. The point is that broadcast media are claiming a larger proportionate share of the dollars spent for advertising than print media. Except for national magazines—which claim to have kept pace with the rise of television—newspapers, direct mail, and other printed media have fallen far behind in percentage of annual gain.

It is true that print was never more flourishing, but it is not doing as well proportionately as the broadcast media. And it is the economic trend that determines the health and profits of an industry in the long run.

Harry E. Collins
Collins, Miller & Hutchings, Inc.
Chicago, Ill.

AN IMPERIAL 1st.

OPENED A NEW ERA IN PHOTOENGRAVING

Among Imperial's many "Firsts" in graphic arts metals is the one-bite, one-bath, one-machine powderless etching of zinc line, halftone and combination plates. A "First" that opened a new era in photoengraving. This was accomplished with Vitaplate, an exceedingly fine grain, zinc alloy and VitasolV, a remarkable etchant which stops out any screen on any flat at the proper depth. Today, the improved Vitaplate—VitasolV team is still "First" in quality and dependability. Ask your Imperial Photo Products representative for details.

Imperial

IMPERIAL TYPE METAL COMPANY
CHICAGO 50 NEW YORK 7 PHILADELPHIA 34

For More Information Circle 93 on Reader Service Card

Applauds Education Stand

Upon graduation from Roxbury Memorial High School in Boston, I received a subscription to PRINTING PRODUCTION. Since the time I read the first issue, I have been an ardent reader of each and every article in your magazine.

Today I am a senior at the Rochester Institute of Technology School of Printing and still very much interested in the type of articles you publish.

From reading your editorials, I have noticed that you have much the same interest in printing education as I have. I would like to congratulate you on the editorial appearing in the November 1960 issue (*Pay Attention to Your Printing Schools*). This editorial may awaken the printing industry to realization of the need of education in this field.

Thank you, and keep up the excellent standard you have maintained for so long in PRINTING PRODUCTION.

Roy A. Cardia
Rochester N. Y.

In Defense of Carnegie

I have read with interest the editorial in the November, 1960 issue of PRINTING PRODUCTION entitled *Pay Attention to Your Printing Schools*. Certainly, I concur with your thought that the printing education situation needs improvement.

I feel strongly that better and more educational facilities are required to train men to fill all sorts of positions in the Graphic Arts. We shall need more and better apprentices, more and better craftsmen, more and better salesmen, and more and better managers.

It is this latter requirement, the need for managers, that part of the new program at Carnegie Institute of Technology aims to fulfill, at least to some extent. The recent developments at Carnegie are not "most alarming;" on the contrary, they are most encouraging.

The Management Option Course at

60 NEW DESIGN
Highest on List

48 EXHIBITS OF FINE
Printing Saturday

42 JET LINER IS
Still Missing

36 PRINTERS TO
Hold Meeting

30 Newest Typeface

24 A Popular Display Type

18 Ludlow Casts Solid Sluglines

14 Inspired Compositors Do Better Work

12 Printers Are Adopting the Ludlow System

10 Typography Depends on Use of Good Judgment

Sizes 6, 8, 72, 84 and 96 point are in process

LUDLOW

Tempo Alternate Bold

is the name of this newest series in the popular Tempo family. Tempo Alternate Bold offers a new weight that is slightly heavier than Tempo Bold and somewhat lighter than Tempo Heavy. This new face will meet the needs of the most discriminating typographer. Fonts are now in production to make this series available in sizes from 6 thru 96 pt. inclusive. Send for your free specimen page showings today.

Ludlow Typograph Company 2032 Clybourn Avenue, Chicago 14, Illinois

For More Information Circle 107 on Reader Service Card

Carnegie is carefully designed to develop first-class managers for the printing industry—men who will be well versed in modern management techniques that are best adapted to the Graphic Arts—and more importantly, men who will be well versed in the basic fundamentals and able to apply them to new situations as they arise.

Carnegie has simply recognized that education has changed over the years and has taken steps to modernize and upgrade its education for the Graphic Arts industry. It is generally recognized that the Graphic Arts industries will be quite different 20 years hence. Leaders must be trained for whatever situation exists at that time.

Neither can I agree with your statement that the low popularity of the course of study at Carnegie is evidenced by the fact that only a dozen students enrolled in it this year. The fact is that 31 students enrolled—11 in the Management Option and 20 in the Design Option.

Considering the fact that the new head of the Department of Graphic Arts was not named until August and that no firm curriculum existed until September, I consider the fact that as many as 31 well-qualified students enrolled to be very favorable evidence of the popularity of the new course.

In years to come, the enrollment will be increased until ultimately there will be a total of about 50 graduates per year.

John L. Kronenberg
Boston, Mass.

In printing my letter discussing the changes in management education for the Graphic Arts at Carnegie Tech, in your January issue, an error was made that changes the point that was to have been made. Your version reads as follows:

"In its technical courses (38% of the program) it draws on a nationally known faculty in typography, advertising design, book design and package design."

In fact, my letter read this way:

"In its technical courses (38% of the program) it builds from a base in fundamental science and mathematics to advanced studies of the science and technology of Graphic Arts processes and materials. In its design courses (13% of the program) it draws on a nationally known faculty in typography, advertising design, book design and packaging design."

Clearly the point is that we are strengthening our studies of Graphic Arts *processes* by creating a science-oriented program. Graphic Arts processes, we believe, constitute an industrial technology that can be studied in the same way that one studies metallurgy, chemical engineering, etc. The students who complete this sequence of studies will be equipped to understand the current and future technology of the Graphic Arts.

Kenneth G. Scheid, Head
Department of Graphic Arts
Carnegie Institute of Technology
Pittsburgh, Pa.

From the Readers

We are sending to you material about our new newspaper plant. I studied your Plant Planning and Improvement issues for three years before we erected our new building. The information contained in these issues was valuable in planning our plant.

Laird Loomis, Manager
Columbus (Neb.) *Daily Telegram*

I would like to compliment you on your fine magazine. I am a pressman at the Fairmont *Daily Sentinel* and PRINTING PRODUCTION is pretty well frayed after making its rounds of the plant.

Daryl G. Roalson
Fairmont, Minn.

Your valuable magazine is an asset to the Graphic Arts.

John L. Grant
Assistant Production Manager
Government Printing Office
Washington, D. C.

TOO GOOD TO MISS!
QUICK SERVICE
COAST-TO-COAST
SEND FOR OUR
COLOR SELECTOR
ARROWHEAD
BLACK AND COLORS
Flint Inks
Founded 1920
Formulated exclusively and precisely by
Flint Ink Corporation
Gravure • Letterpress • Lithographic • Flexographic
ATLANTA • CHICAGO • CLEVELAND • DALLAS • DENVER • DETROIT • HOUSTON • INDIANAPOLIS
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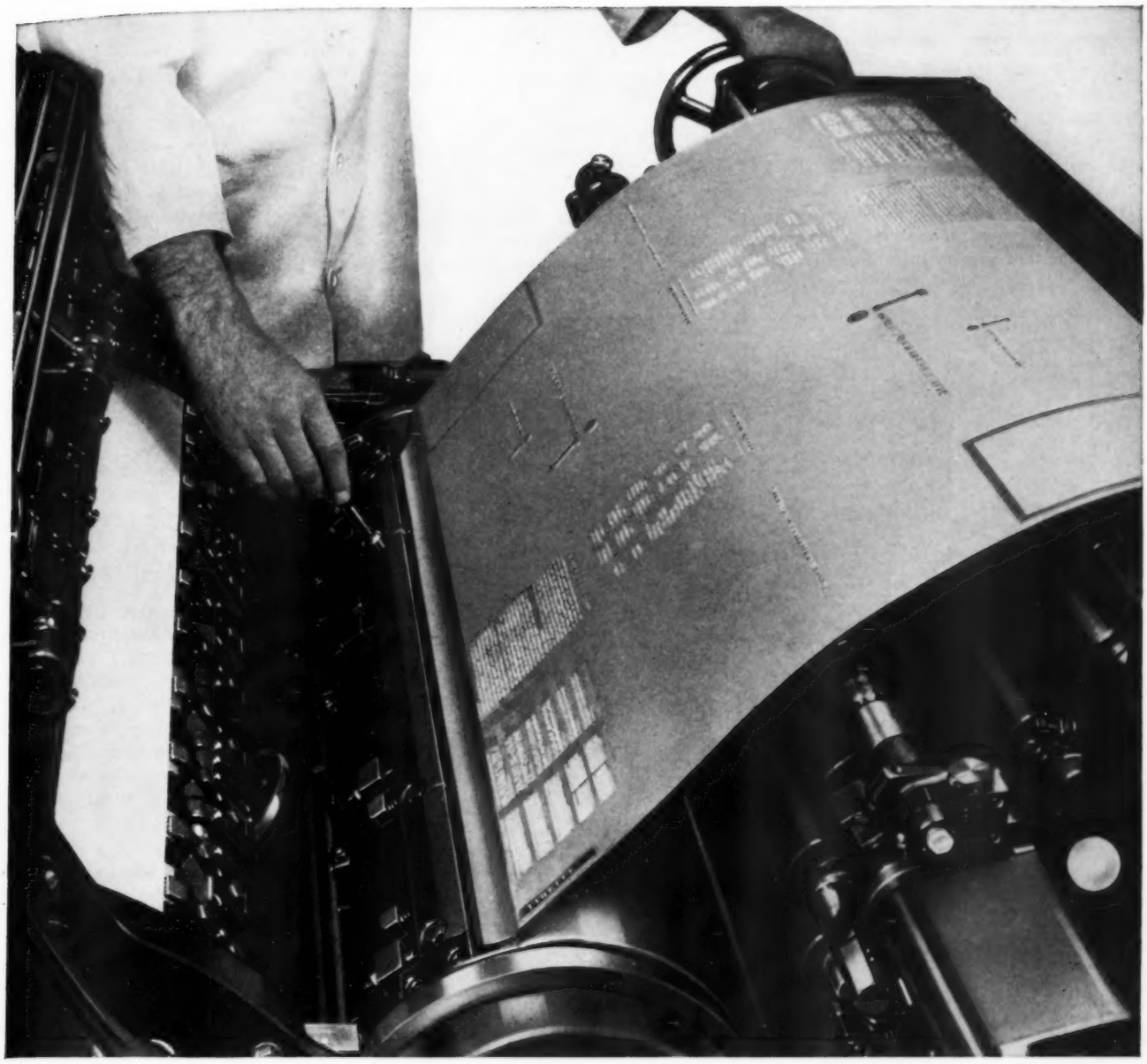
For More Information Circle 63 on Reader Service Card

WRAP-AROUND PLATES!



Now...new wrap-around plates make Original Heidelberg two-color cylinder presses more versatile, more profitable than ever!

ORIGINAL HEIDELBERG

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New York City Display Room—350 Hudson Street

HEIDELBERG WESTERN SALES CO.
1700 South Wall Street, Los Angeles 15, California
Telephone: Richmond 9-1251

Yes—rush me information on new Wrap-Around Plates and Original Heidelberg Two-Color Cylinder Presses.

NAME_____

COMPANY_____

ADDRESS_____ CITY_____ STATE_____

For More Information Circle 86 on Reader Service Card

NEWS ITEMS

W. O. (Toby) Morgan Dies—W. O. (Toby) Morgan, offset editor of *Graphic Arts Monthly*, died Dec. 27 at the age of 47. Born in Boaz, Alabama, Mr. Morgan graduated from the University of Florida and spent four years in the United States Navy during World War II. After the war, he was named administrator, vocational education and executive director of the Chicago Lithographic Institute. He served as president of the Lithographers Club of Chicago and as treasurer and president of the National Assn. of Litho Clubs. Mr. Morgan had been associated with GAM since 1953. At the request of Mrs. Morgan, a Memorial Fund is being established in the memory of Toby Morgan. Contributions should be sent to: National Assn. of Litho Clubs, c/o Robert J. Mayer & Co., 330 S. Wells St., Chicago 6.

Former IAES Official Dies — Joseph Schwartz, president of Westcott & Thomson, Inc., Philadelphia, died of a heart attack on Jan. 6. Mr. Schwartz was an active member of the International Assn. of Electrotypers & Stereotypers, having served as an officer and director of the organization.

Mergenthaler Officers Elected — Gurdon W. Wattles has been elected chairman; William J. Flather, Jr., vice chairman, and J. A. Keller, president, of Mergenthaler Linotype Co. Other officers are: Paul S. Chisholm, vice president-domestic sales; William H. Granville, vice president-manufacturing; Louis Rossetto, vice president-research and engineering; Glenn E. Taylor, Jr., treasurer; Donald Reich, secretary; Walter F. Leach, controller, and Charles F. Lucek, assistant secretary and treasurer.

ANPA-RI Research Appointment—Frank J. Stanczak has been appointed assistant technical research director of the American Newspaper Publishers Assn. Research Institute. A staff member of the Research Center at Easton, Pa., since 1949, Stanczak will report to Roy Prince, research director, and will be responsible for a substantial portion of the research activities.

Serrill Joins NEA—Thodore A. Serrill has been named executive vice president of the National Editorial Assn., a trade association of 6000 weekly, semi-weekly and daily newspapers. Previously, Serrill has served as executive director of the Washington (D. C.) Newspaper Publishers Assn. and as an executive for the Pennsylvania Newspaper Publishers Assn.

Des Moines Newspaper Appointments—William Dorriss, mechanical superintendent, has announced the appointment of Warren Stremming as composing room foreman of the Des Moines (Ia.) *Register and Tribune*. Formerly night foreman of the composing room, Stremming succeeds Carl Lawrence who is now associated with the Hollywood (Calif.) *Citizen-News*.

Following his appointment, Stremming announced that Louis A. Walden, who has been with the newspaper for 26 years, has been named night composing room foreman. Continuing in their present

Des Moines *Register and Tribune* personnel, appearing left to right, are: Norman Miller, Warren Stremming, Chester Burke, Louis A. Walden and Adolph Cebuhar.

You are looking at a 24″ camera just 48″ high

Kenro "Vertical 24" Camera
Model V240 with Vacuum Back

In more ways than one, the Kenro "Vertical 24" puts a new dimension into the part a camera can play in your production methods. With the vacuum back it produces line or halftone negatives up to four 8½ x 11's or a full newspaper page. With the prismatic head, one of the many interchangeable backs, it produces directly, without negatives, repro quality enlarged or reduced line shots, tints and screened velox prints in positive or reverse form for paste-up or proofing.

It's a giant for work, versatile in application and precise in construction. Goerz lens, G.E. Quartzline lamps and ColorTran converter are standard equipment. Isn't it time you asked your dealer to demonstrate how a Kenro can save you time and money? Write for complete literature.

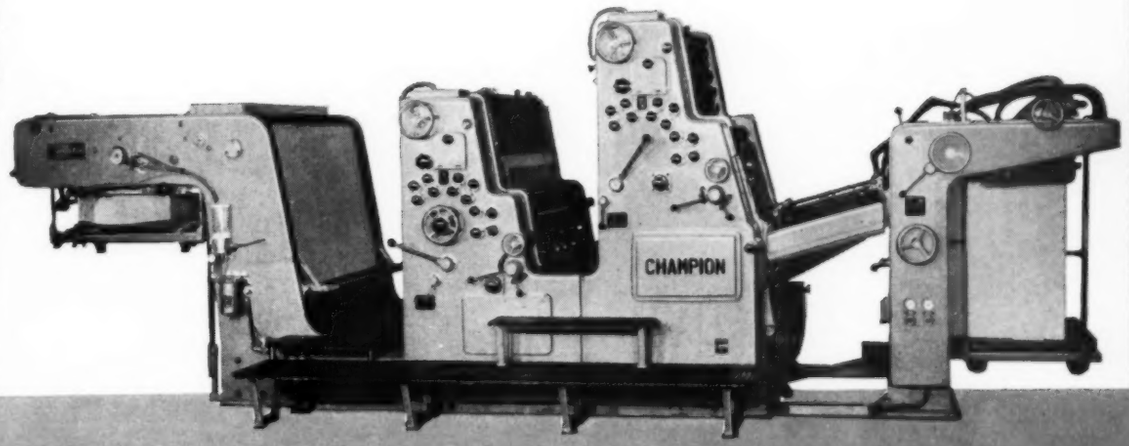
KENRO GRAPHICS, INC.
Dept. G, Cedar Knolls, New Jersey

For More Information Circle 97 on Reader Service Card

So easy to operate, work's almost a pleasure

CHAMPION!

- controls are outside machine
- lubrication's continuous
- exceptionally quiet—even at 7200 sheets/hr.!



Turning out fine offset work is tough enough without having to battle a balky press, too. That's why you should check the Champion. The more than 100 now in use have proved it's the two-color press built with you in mind . . . the press that lets you concentrate on the job at hand. Consider all you get:

EASY-TO-GET-AT CONTROLS . . . all located conveniently on the side of the Champion. You make all settings and adjustments quickly, simply, without ever having to work "inside." And you can control one or both units from this single station.

PRECISE REGISTRATION . . . you can reposition the "B" unit vertically or horizontally while the machine is running. Massive steel frame and precision-ground parts also help assure registration second to none.

SPECIALLY-DESIGNED TRANSFER SYSTEM . . . delivers first-quality impressions on long and short runs, thick or thin stocks.

CONTINUOUS LUBRICATION of both feed and machinery drive systems by means of a special recirculating oil system. Keeps downtime, maintenance costs at a minimum. This lubrication, plus precision gearing, makes for an exceptionally quiet-running press.

PRECISE ELECTRONIC FEED CONTROL . . . for example, only the Champion offers you an electronic eye that prevents feeding if sheets are late, early or crooked, and spotlights the trouble. Corrections? Fast and easy.

QUALITY PRINTING AT TOP SPEED . . . up to 7200 sheets/hr., on sheets as large as 26¾" x 38½" . . . with precise controls to insure proper inking at any speed on any stock.

MONEY-SAVING VERSATILITY . . . the Champion enables you to handle stocks of varying thicknesses — even board up to 30-point.

OTHER KEY FEATURES . . . stoppable at feed, "A" unit, "B" unit or delivery system. Oversize, 26" cylinder. Streamlined construction.

These are only a few of the Champion features that can make your job easier. For full details on this fine press, and on the prompt service HCM Corporation offers, write today.

CHAMPION by **colormetal**

A world leader in the development of offset printing presses
Zurich, Switzerland

Distributed in the U.S. exclusively by:

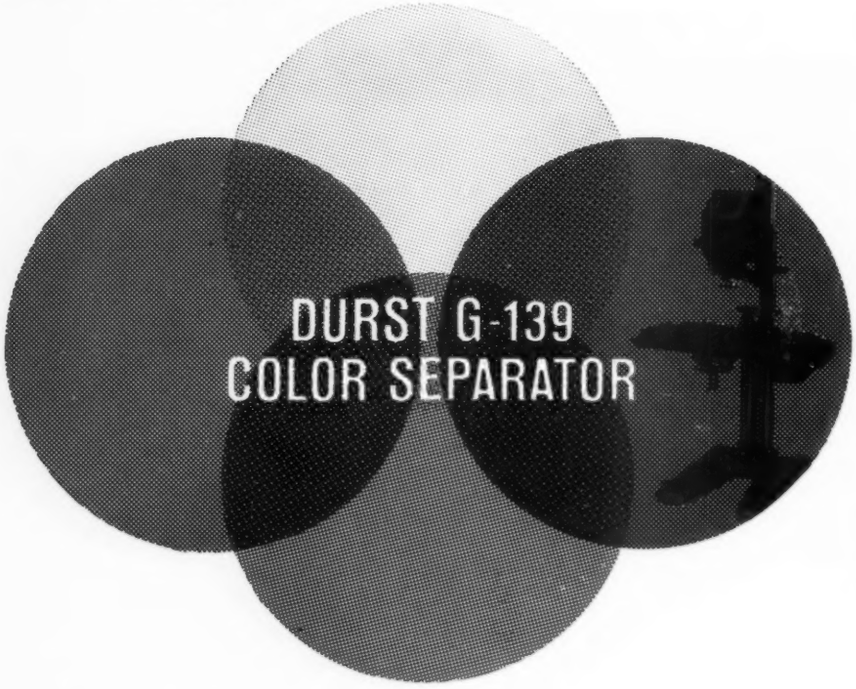
HCM CORPORATION
80 Varick Street
New York 13, N. Y.

General Sales Agent: Consolidated International Equipment & Supply Co., Chicago, Ill.

Authorized Dealers: *East Coast:* Ernest Payne Corporation, New York / *Philadelphia:* Foster Type, Philadelphia, Pa. / *West Coast:* Graphic Arts Equipment & Supply Company, Los Angeles, San Francisco, Seattle, and Portland.

For More Information Circle 85 on Reader Service Card

a new approach to the mechanics of controlled color separation...



Consistently* high quality separation. Faster, easier, more accurate operation. Maximum economy in material, time and operating cost. *In the highly competitive field of color separation, these results can be achieved only by adequate controls... by equipment designed with color control in mind.

The DURST G-139 Process Color Separator with Synctrol Light Control meets these specifications. It is a complete control color separation package, and a major break-through in cost. With no compromise in quality, the G-139 complete with Synctrol Unit costs thousands of dollars less than other types of process equipment.

Present shop methods or future masking systems may be used on the G-139. Its carefully designed controls allow fast, easy operation, even in darkness. The high precision Kodak registry system is familiar to most operators. Where greater light intensity is required the compatible Durstronic Unit may be readily substituted for the Synctrol Unit to supply electronic flash.

The DURST G-139 offers exceptional advantages as primary equipment or as an addition to existing equipment. Write for details today.

GRAPHIC ARTS DIVISION
DURST (USA) INC.
1140 Broadway, New York 1, N.Y. Department—

For More Information Circle 54 on Reader Service Card

posts with the newspaper will be Adolph Cebuhar, assistant night foreman; Norman Miller, day composing room foreman, and Chester Burke, assistant day foreman.

Herman to Manage Star Parts Sales—Isaac Bendow, president of Star Parts, Inc., has announced the appointment of Quido E. Herman as sales manager. Herman, president of Quido E. Herman & Co., Inc., will succeed Emil Bendow, newly appointed vice president of the corporation, on April 1, 1961.

HERMAN

MAIN

Assistant Production Manager at *Newsday*—Floyd Main has been appointed assistant production manager of *Newsday*, Garden City, L.I., N.Y. In his new position, Main has the responsibility for daily operation of the mechanical departments. Formerly, Main served as production manager of the Washington, D. C., plant of the *Wall Street Journal*.

Baum Purchased by Bell & Howell—Bell & Howell Co. has purchased Russell Ernest Baum, Inc., and its subsidiary, Liberty Folder Co. The announcement was made by William E. Roberts, executive vice president of Bell & Howell, and Russell Ernest Baum, president of Baum. Roberts said the Baumfolder line of more than 100 automatic folding machines will supplement Bell & Howell's office equipment line, which now includes inserting and mailing machines manufactured by the Bell & Howell Phillipsburgh Co. Russell Ernest Baum will remain with the organization in an advisory capacity.

Milwaukee *Journal* Elects Vice Presidents—Donald B. Abert, general manager, has been elected executive vice president, and Robert H. Dumke, production manager, has been elected vice president of the Milwaukee *Journal*. Abert, who joined the *Journal* in 1928, has served as general manager since Oct. 2, 1959. He has also served as assistant business manager, director and vice president of the newspaper. Dumke joined the photographic department of the *Journal* in 1936 and has since served as head of that department and as production research coordinator. He was appointed production manager in October 1959 after the death of Joseph E. McMullen.

A ROLL-FED PRESS FOR EVERY PRINTER

Didde-Glaser's new roll-fed offset press brings "big press" performance into your shop — at half the price . . . and, it's designed to handle the bulk of your jobs at high speed! It has the speed to handle long runs . . . the low-cost makeready to handle short runs . . . and the economy to make BOTH profitable!

Modular in design, the Tandemer consists of self-aligning, compact units — that can be added or removed as the job requires. **All units, accessories, and attachments are interchangeable in your shop! FINANCING AVAILABLE:** Write us today on your company letterhead for complete information. Financing available on all Didde-Glaser equipment.

If your business includes:
* Letterheads
* Purchase Orders
* Invoices
* Order Blanks
* Sales Letters
* Statements
* Price Lists
* Direct Mail
* Catalogs
* Inserts and the like . . .

It would pay you to investigate the Tandemer today!

TANDEMER

ROLL-FED OFFSET PRESS

TWO COLOR TANDEMER

Didde-Glaser, INC.
DEPT. PP2, BOX 608, EMPORIA, KANSAS
Designers / Manufacturers / Distributors of Graphic Arts Equipment

For More Information Circle 53 on Reader Service Card

Heidelberg Moves New York Showroom—The Manhattan showroom of Heidelberg Eastern, Inc., has been moved to larger quarters at 350 Hudson St. The firm's main office remains at 73-45 Woodhaven Blvd., Glendale 27, L. I., N. Y.

Schulkind Forms New Company—The new firm of David W. Schulkind Co., Inc., 225 W. 34th St., New York, plans to offer a range of reportedly new bindery materials. According to the announcement, its initial offering will be three hollow drills for paper drilling operations. The firm is founded by David W. Schulkind, who was former president of the E. P. Lawson Co. and of the Lawson Div. of the Miehle-Goss-Dexter Co.

Holton Appointed by Harvester Press—Stanley C. Holton has been named assistant superintendent of the Harvester Press, printing division of International Harvester Co. Holton has been associated with the company since 1928, most recently serving as general supervisor of office operations in the Consumer Relations Dept.

Dewey and Almy Appoints Plant Manager—Craig E. Falk has been appointed manager of the Adams, Mass., plant of Dewey and Almy Chemical Div., W. R. Grace & Co. Manufactured at the Adams plant are Polyfibron offset press blankets for lithography and other impregnated fiber products. He succeeds Charles E. Brookes, who has been named assistant general manager of Dewey and Almy's impregnated fiber tape backings and shoe materials. Brookes will retain overall supervision of manufacturing at the Adams plant.

HOLTON

FALK

Appointed Membership Chairman—William Webber, executive director, Lithographic Technical Assn., has been appointed membership committee chairman of the Graphic Arts Assn. Executives. Others on the committee are Samuel Burt, executive secretary of the Education Council; Frank J. Schreiber, executive secretary of the American Photoengravers Assn.; Felix R. Tyroler, managing director of Mail Advertising Service Assn.; and Oscar Whitehouse, executive secretary of the Lithographers and Printers National Assn.

Miehle Appoints Assistant Service Manager—Carl E. Thompson has been named assistant service manager for the West Coast area by Miehle Company, Div. of Miehle-Goss-Dexter, Inc. Thompson has had 20 years of experience in servicing printing presses and Graphic Arts machinery. He will make his headquarters at the company's San Francisco office, 200 Folsom St.

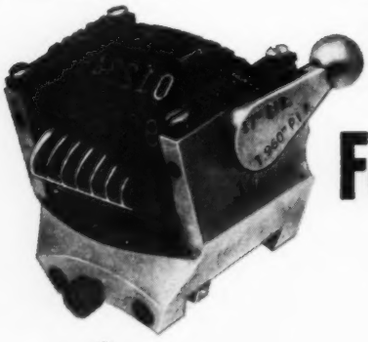
THOMPSON

OLSEN

Joins Huber Ink Staff—Jerry Olsen has joined the Central district sales staff of the Ink Division of J. M. Huber Corp. He will represent the company in the Eastern Great Lakes Area of New York, Pennsylvania, Michigan and Ohio. Prior to joining Huber, Olsen was associated with the Printing Products Div., Minnesota Mining & Mfg. Co.

85 Years of Leadership Produced the Force 1000 SFM* Numbering System!

Convex Curved Base
Female Dovetail Head



Straight Flat Base
Male Dovetail Head

Since 1875, William A. Force & Company has pioneered new developments in numbering equipment. Latest development is the "1000 SFM* Universal Rotary Numbering Head Assembly System" providing accurate numbering at 1000 Surface Feet per Minute. Customized to your exact needs, this System speeds-up production on complex jobs without the cost of special "built-to-order" machines. You start with a basic set-up, and build around it as new needs arise. Straight or convex style rotary heads are available for printing across or along the web.

*On 17" circumference presses and larger.

Write for Force Rotary Heads and Typographs booklet

The FORCE of Numbers

WM. A. FORCE & CO., Incorporated
216 Nichols Ave., Brooklyn 8, N.Y.

For More Information Circle 64 on Reader Service Card

Standardization and control with **DIACO Contact Printing Center** by Unitronics

The DIACO new, all-in-one "contact camera" incorporates such outstanding features as precision light-metering and color-temperature monitoring controls, large 22″ x 26″ vacuum frame with register pins, adjustable vacuum pressure, automatic filter wheels, and a light source for every photographic need.

With your photographic technician at the TELL-ALL control panel, he can do color separation, point light duplicating, direct positive exposures, color proofing and masking, all while remaining completely independent of other shop facilities.

The DIACO PRINTER is an entirely new concept... providing everything your photographic technician needs to do his job more economically... and the precision controls to do it better. For more information write Unitronics, Inc., Subsidiary of Lanston Industries, Inc., Box 4768, Philadelphia 34, Pa.

This advertisement was composed on the Monotype in 20th Century Medium and Ultra Bold and Century Bold.

Lanston unitronics, inc.

Proofing Film • Film Dispenser • Light Integrators • Optical Depth Gauges • Contact Camera • Step and Repeat Machines • Overhead Cameras • Plate Coaters • Developing and Darkroom Sinks • Vacuum Printing Frames • Layout and Stripping and Dot Etching Tables

For More Information Circle 102 on Reader Service Card

New York Printers Consolidate—The consolidation of Richard M. Krause, Inc. and Prospect Press, Inc., is announced by Harry K. Lowe, Prospect president. The Krause firm, established in 1905, is said to be one of New York's oldest and largest printers of labels and wrappers. The new firm will be located at 52 E. 19th St., New York, and will be under the direction of Richard M. Krause, Jr.

Standard Publishing Promotes Three—Three executive promotions have been announced by Standard Publishing, Cincinnati. V. A. Anderson has been named assistant to the president for organization; James C. Fergus, assistant to the president for sales; and J. Bernard Jones, sales manager. Prior to the appointments, Anderson had been director of personnel; Fergus, sales manager; and Jones, a sales representative.

Simonds Saw and Steel Opens Branches—Two new branches have been opened by Simonds Saw and Steel Co.; one is located in Los Angeles and the other, in Union, N. J. Both buildings are to serve as a warehouse, sales office and service shop. The area to be serviced by the Los Angeles branch includes Southern California, Arizona, Southern Nevada, New Mexico and part of Texas. The New Jersey branch replaces the Boston office and will service the Eastern Seaboard states. Addresses of the branches are: 1160 Springfield Rd., Union, N. J., and 1950 E. 20th St., Los Angeles.

IPI Executive Changes—A. W. Legge has been appointed vice president-sales, Printing Ink Div., Interchemical Corporation. He replaces C. Stanley Johnson, who has been named general manager of the corporation's Color & Chemicals Div. Succeeding Legge as Southern District general manager is E. A. Kalmar, who is also a company vice president. Don Garbutt assumes the post of IPI Cincinnati factory manager which was vacated by Kalmar. Other changes include: Franklin A. Dick who has been named vice president-national sales; Joseph Steinbruner, assistant central district manager, and H. S. Fitch, manager of the Elston Avenue factory in Chicago.

Von Hoffmann Press Vice President—Earl A. Ginter has been named vice president-sales of Van Hoffmann Press, Inc., St. Louis. He has been associated with the printing, lithographing and book manufacturing firm since 1946.

To Represent Miehle in Texas—George Boyne has been appointed sales representative of the Miehle Company, Div. of Miehle-Goss-Dexter, Inc., in the Dallas, Tex., territory. From headquarters at 724 Young St., in Dallas, he will be responsible for an area including Texas, Arkansas, Oklahoma and part of Louisiana. He will handle Miehle, Dexter and Lawson equipment.

BOYNE

HANLEY

Douglas Offset Elects President—John A. Hanley has been elected president of Douglas Offset Co., Detroit. Hanley joined Douglas in 1952 and was appointed vice president in 1955.

Judd & Detweiler Officers—James W. Shields has been elected president of Judd and Detweiler, Inc., Washington commercial printing plant. He succeeds George E. Judd, who was elected chairman of the board of directors. Judd has served as president since 1928. Shields has been executive vice president for the

(*Continued on Page 22*)

NEW JET LINE TABLES

The nuArc Line-up Table is an invaluable precision tool for every graphic arts plant. All moving parts are precision machined and aligned at the factory. Straight edge assembly rides accurately and effortlessly on a heavy duty rack and gear mechanism. nuArc quality means more accurate register—reduced "make-over"—better and more efficient printing.

Register and Repeat is an exclusive nuArc feature that saves you time and guarantees accuracy of duplicates and make-overs. Simply set the stops that are standard equipment (six on front bar and six on side bar) for your original press sheet, press or bindery layout sheets. If it is necessary to make more than one copy, you are sure of duplicating your originals quickly and with perfect accuracy with the pre-set stops as your guide. As an added convenience, the bars can be removed and stored indefinitely with the stops in position. Extra bars and stops are available.

another BUILT-RIGHT PRICED-RIGHT item from nuArc

Get the full "Register & Repeat" story today in Bulletin A300PP

nuArc COMPANY, INC.

General Office and Factory: 4110 W. Grand Ave. • Chicago 51, Ill.
Sales and Service: New York • Los Angeles

nuArc Flip-top PLATEMAKER

THE MODERN WAY TO MAKE PLATES

FT-40 $795 30 x 40

No partitions—no exhaust systems. One complete compact unit with vacuum frame on top and carbon arc lamp enclosed in base. 6 sizes all described in Bulletin A500

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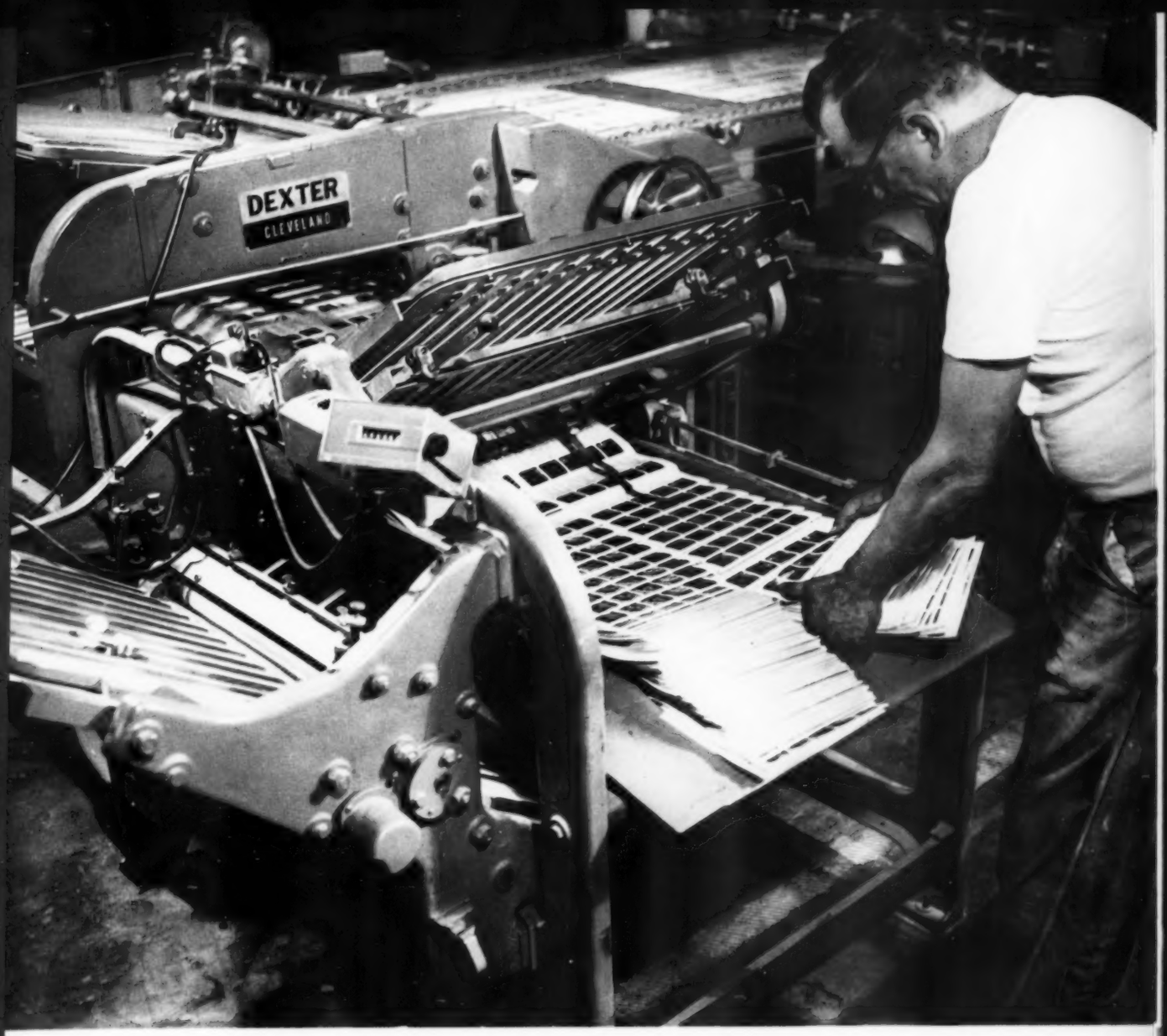
For More Information Circle 234 on Reader Service Card→



QUALITY COLOR PRINTING DESERVES FOLDING PRECISION

Trade binders put quality printing jobs on Dexter (Cleveland) Folders. The universal "choice of the pros," these folders combine precision accuracy with economical operation and proved dependability. Experience, sound design and manufacturing craftsmanship give you these important advantages ● scuff-proof continuous air wheel feeder ● automatic sheet register ● ball-type side guides ● swinging deflectors on all fold plates ● micrometer fold plate adjustments ● self-adjusting fold rollers ● precision scoring, slitting and perforating ● optional pasting attachment ● a Dexter (Cleveland) Folder for every need – to handle sheet sizes from 3 x 4″ to 44 x 64″.

DEXTER

Preserve booklet and publication qu
bindery operations. One efficient,
operation inserts, stitches, trims acc
ing. It increases production, simplif
tion consists of McCain Signature
Trimmer ● handles books up to 12
and easy to set up, even for short ru
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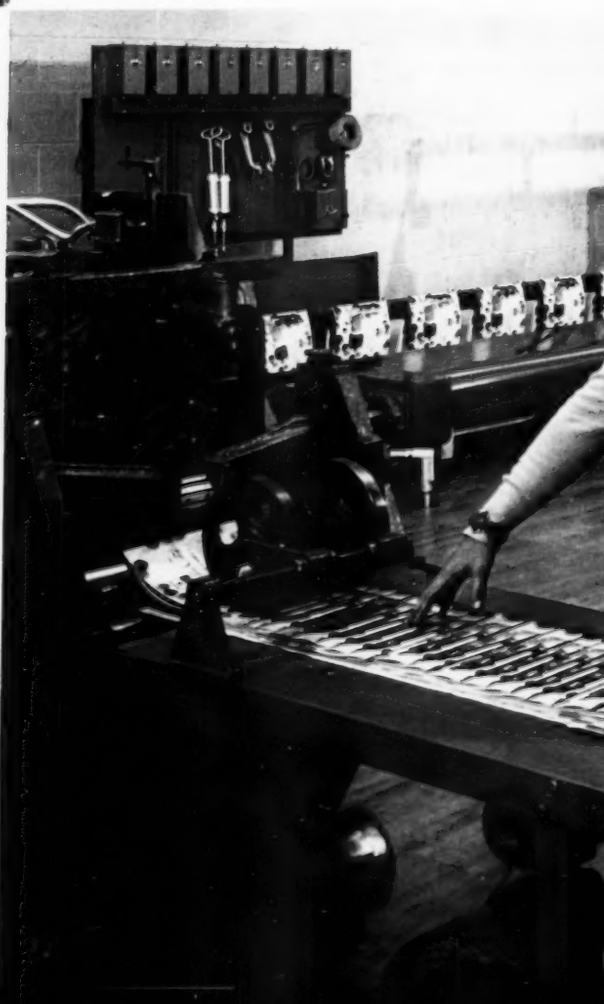
Dexter (Cleveland) Folder



McCAIN

ation quality by eliminating unnecessary handling between
ficient, straight-thru McCain-Christensen saddle binding
rims accurately and delivers finished books ready for pack-
simplifies scheduling, saves floor space ● basic combina-
nature Feeders, Christensen Stitcher and McCain 3-Knife
p to 12 x 18¾" and ½" thick at speeds to 9000/hr. ● fast
short runs ● Fourth and Fifth Knives for two-up bleed work
ed, big production.

PROFIT PROVED EQUIPMENT FOR QUALITY COLOR

There's more business for you in the growing volume of medium run fine color printing. And there's more profit for you when you produce efficiently with press and bindery equipment from Miehle-Goss-Dexter.

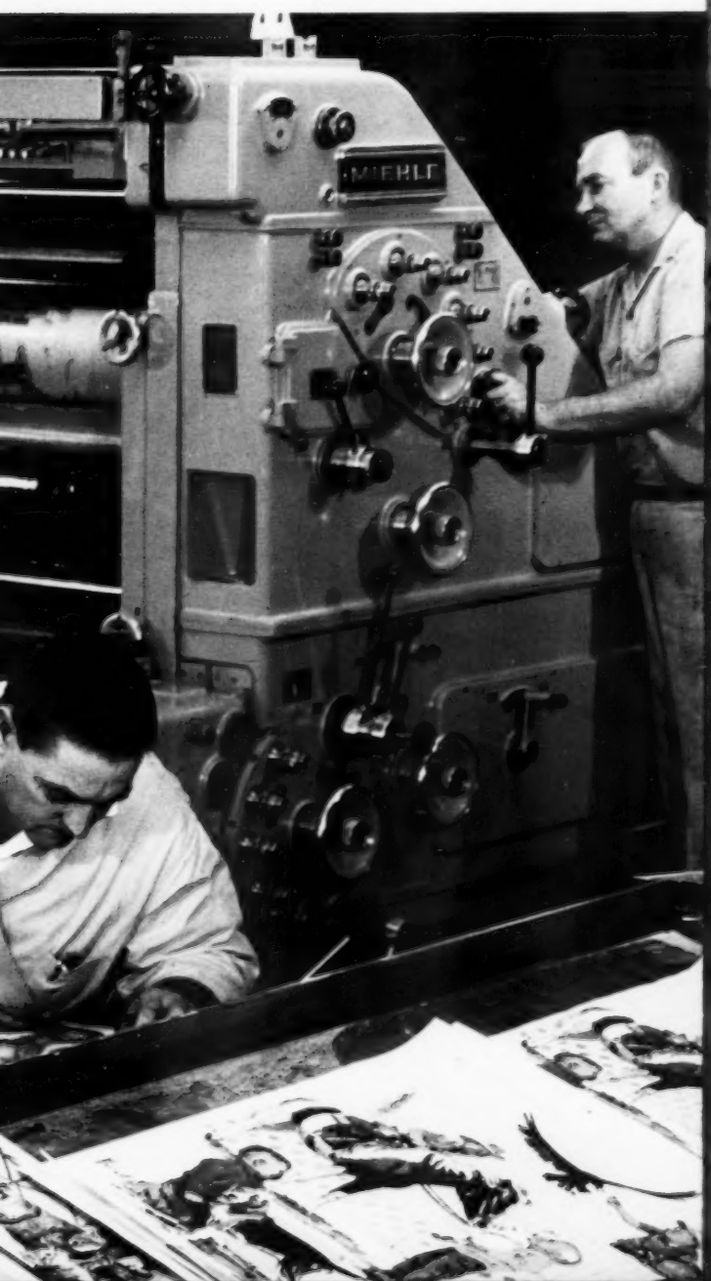
Ask your MGD man to help you make an equipment plan for a profitable tomorrow.

MIEHLE-GOSS-DEXTER
INC.
CHICAGO 8, ILLINOIS

Increase your sales of fine proces
Miehle 38 Two-Color. Miehle gives
per sheet infeed for hairline regis
solids or delicate tints • patented
and exact print length • high runnin
lets you load and unload while the
which make the pressman's job eas
manship • Companion presses a
and the Miehle 25 Two Color (20 x

MIEHLE

process color offset work by producing it on a
e gives you quality plus production • swing grip-
ne register • full, controllable inking for heavy
tented True Rolling cylinders for sharpest dots
n running speeds and Continuous Operation that
hile the press keeps printing • lots of features
job easier, enable him to concentrate on crafts-
esses are the Miehle 29 Two-Color (23 x 30″)
r (20 x 26″).



LAWSON

CUTTING ACCURACY PROTECTS FINE COLOR WORK

Square up a guide edge—it must be straight as a die. Trim off bleed—there's no margin for error. Cut apart labels—a single miscut can cost you plenty. Make sure of the precision—and the economical production you need—with Lawson Pacemaker Hydraulic Clamp Cutters • true two-end knife pull • firm, yet gently cushioned hydraulic clamping • 20% heavier and almost 50% greater knife speed, size for size, than most others • 3-point knife bar support • snag-proof slot closing device • Sized to 69″ with Electronic Spacer (.002″ accuracy) and Flexible Contour Clamp optional.

M G D

Speed King BLACKS

IPI Speed King Blacks are newly improved packaged inks, formulated to satisfy nine out of ten press assignments. Although they vary somewhat in characteristics, they all offer these advantages:

1. **Split-second setting**
2. **Ultra-fast drying**
3. **Improved press stability**
4. **Less dryback . . . almost as bright when dry as when wet, on coated stock**
5. **High finish on coated stocks; brilliant finish on enamel, *Kromekote, Lusterkote* and C1S label papers**
6. **Print sharp and clean**

Call your IPI salesman today for Speed King Packaged Blacks. And remember . . . IPI offers still other specialized blacks for every conceivable printing purpose!

SPEED KING PACKAGED BLACKS

SPEED KING JOB BLACK has a regular job press body and can be left on the press overnight because it contains no drier. Even after long shutdown, it is easily regenerated by the addition of fresh ink. Speed King Job Black sets and dries quickly and is recommended for general shop use on enamel, coated and absorbent stocks.

SPEED KING HALFTONE BLACK contains drier and should not be left on the press overnight. It sets and dries very fast with good gloss on enamel, coated and absorbent stocks, and performs well on some machine coated papers. Recommended for all top-quality letterpress halftone work.

SPEED KING LITHO JET H.T. BLACK is of the highest quality—has excellent fountain flow, resists greasing and prints sharp, clean and dense. Sets extremely fast and dries quickly on coated stock—slightly slower on regular offset. Good rub and scratch resistance.

SPEED KING LITHO GEM BLACK sets extremely fast on coated paper and slightly slower on regular offset stocks—has good working qualities and is excellent for process work. Prints dense with good gloss; contains drier and cannot be left on the press overnight.

IPI, IC and Speed King are trademarks of Interchemical Corporation

CORPORATION DIVISION

EXECUTIVE OFFICES: 67 WEST 44th STREET, NEW YORK 36, N. Y.

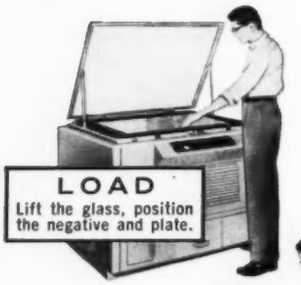
News Items

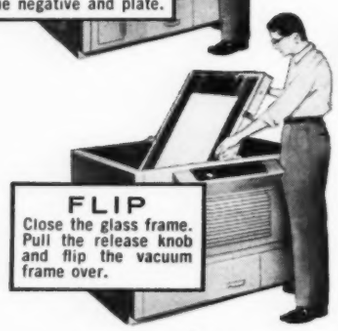
(Continued from Page 16)

past six years. Former assistant vice presidents Willard E. Brown and Henry J. Laupp were elected vice presidents for sales and production, respectively. Former Chief Accountant William B. Cochrane was named treasurer. John H. Davis, Sr., resigned as chairman of the board, but will continue to serve as a director. John H. Davis, Jr., will continue as vice president and secretary of the firm.

San Francisco Firms Merge—The merger of Filmer Brothers Press and Taylor & Taylor, San Francisco printers, has been announced. In a joint statement, W. Coy Filmer, president of Filmer, and James W. Elliott, president of Taylor, said that the name and facilities of the latter firm have been acquired by Filmer interests. Operations will be combined in the early spring when the Filmer composing room and edition binding departments will be transferred to the Taylor & Taylor plant, 246 First St. The firm is to be known as The Filmer Brothers Press, Taylor & Taylor.

(*Continued on Page* 104)





Obsoletes all other Platemakers!

nuArc flip-top PLATE MAKER

Fast—simple—clean—compact. nuArc flip-top platemakers are the modern way to make perfect offset and letterpress plates.

A specially designed carbon arc reflector floods every square inch of printing surface with even light...eliminating undercutting and decreasing exposure time. Live rubber blanket guarantees perfect negative-to-plate contact.

You save with flip-top units in the initial cost (cost 30% less than separate frame and arc lamp units), in the installation (no partitions, curtains or external exhaust systems necessary), and in the operation (easier, faster operation than with conventional units).

*Send for the latest "flip-top" Bulletin A-500PP

13 • 18 MODEL FT-18
17 • 24 MODEL FT-24
21 • 26 MODEL FT-26
28 • 32 MODEL FT-32
30 • 40 MODEL FT-40
43 • 52 MODEL FT-52

MODELS FT-32, FT-40 AND FT-52 ARE AVAILABLE WITH AUTOMATIC OR MOTOR DRIVEN ARC LAMP.

nuArc COMPANY, INC.
General Office and Factory: 4110 W. Grand Ave. • Chicago 51, Ill.
Sales and Service: New York • Los Angeles

LIGHT TABLES
nuArc only $99
Feature: chrome plated precision straight edges on four sides; fluorescent lighting; metal construction. Shipped set-up, ready to use. Five sizes to 42 x 62. Send for Bulletin A217.
23x28

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MEETINGS for the PRINTING INDUSTRY

American Photoengravers Assn. — 1961 Conv., Pittsburgh Hilton Hotel, Pittsburgh, Oct. 23-25. Exec. Secy. Frank J. Schreiber, 166 W. Van Buren St., Chicago 4.

ANPA-RI Production Management Conf.—1961 Conf., Palmer House, Chicago, June 5-7. Mgr. William D. Rinehart, ANPA-RI Mechanical and Service Div., 750 Third Ave., New York 17.

Book Manufacturers' Institute—1961 Annual Meeting, Boca Raton Hotel, Boca Raton, Fla., Oct. 17-20. Secy. Miss A. G. Watson, 25 W. 43rd St., New York 36.

Fifth District Craftsmen's Conf.—1961 Conf., Sheraton Hotel, Akron, O., Apr. 28-29. President Leonard A. Pollina, 71 W. Bowery St., Akron 8, O.

Flexographic Technical Assn.—1961 Meeting, Hotel Roosevelt, New York, Feb. 9-10. Exec. Secy. Julian Ross, 220 W. 42nd St., New York 36.

Graphic Arts Assn. Executives—1961 Spring Meeting, Chase Park Plaza Hotel, St. Louis, June 2-3. Secy.-Treas. Doris Hall, 321 Tower Bldg., Washington 5, D. C.

Gravure Technical Assn.—1961 Conv., Hotel Drake, Chicago, Mar. 8-10. Exec. Secy. Edward S. St. John, Room 4800, 30 Rockefeller Plaza, New York 20.

Great Lakes Mechanical Conf.—1962 Conf., Claypool Hotel, Indianapolis, Jan. 14-16. Secy. John E. Innis, R. R. No. 1, Box 546, Indianapolis 27, Ind.

Illinois Newspaper Mechanical Conf.—1961 Conf., Sheraton Towers, Chicago, Sept. 23-24. Secy.-Treas. Arthur Kramer, Joliet (Ill.) *Herald-News*.

Intl. Assn. of Electrotypers & Stereotypers, Inc.—1961 Conv., Shoreham Hotel, Washington, D.C., Oct. 2-5. Exec. Secy. Floyd C. Larson, 758 Leader Bldg., Cleveland 14.

Intl. Assn. of Printing House Craftsmen—1961 Conv., Palmer House, Chicago, Aug. 6-9. Exec. Secy. Pearl E. Oldt, 411 Oak St., Cincinnati 19.

Intl. Graphic Arts Education Assn.—1961 Conf., Ferris Institute, Big Rapids, Mich., Aug. 13-18. Exec. Secy. Samuel M. Burt, 5728 Connecticut Ave., N.W., Washington 15, D. C.

Intl. Printers Supply Salesmen's Guild—1961 Meeting, Palmer House, Chicago, Aug., 6-9. Secy. Harry Deck, 75 E. Wacker Dr., Chicago 1.

Intl. Typographic Composition Assn.—1961 Conv., The Queen Elizabeth, Mon-

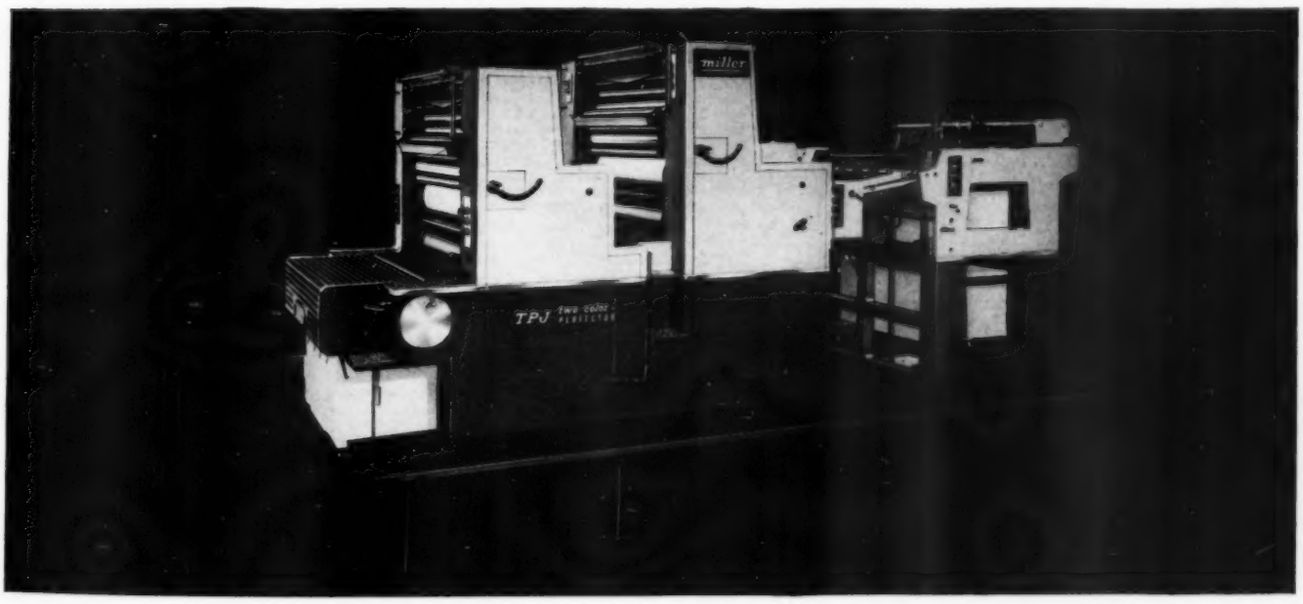
8½ x 11

The popular size...and the press* to produce it best!

A page size of 8½ x 11 is indeed the most popular being produced today. By far the bulk of the work is being printed in this most mailable, fileable, *retainable* size. The Miller TPJ 23 x 36 Two Color-Perfector Offset Press is ideally suited for this size and its multiples. Set as a two color, it is an economical press for multicolor work with sufficient capacity for bleeds. As a perfecting press, it quickly, efficiently produces single-color backed-up work of exceptionally fine quality . . . a sixteen-page 8½ x 11 signature completed in one pass through the press. Write today for full details, and a brochure describing the Miller TPJ Two Color-Perfector and the companion Miller SJ Single-Color Offset Presses will be sent to you promptly.

miller

MILLER PRINTING MACHINERY CO., 1103 REEDSDALE ST., PITTSBURGH 33, PA. • IN CANADA: SEARS LIMITED, 253 SPADINA ROAD, TORONTO 4



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treal, Can., Oct. 4-7. Exec. Secy. McKinley M. Luther, Washington Bldg., 15th St. and New York Ave., N.W., Washington 5, D. C.

Iowa Newspaper Mechanical Conf.—1961 Conf., Hotel Blackhawk, Davenport, Ia., May 26-28. Secy.-Treas. Paul F. Kamler, Mechanical Supt., Clinton (Ia.) *Herald*.

Lithographers and Printers National Assn.—1961 Conv., Arizona Biltmore, Phoenix, Ariz., Apr. 30-May 5. Dir. Oscar Whitehouse, 1025 Connecticut Ave. N.W., Washington 6, D. C.

Mid-America Newspaper Mechanical Conf.—1961 Conf., Hotel Muehlebach, Kansas City, Mo., Sept. 8-10. Secy. Cliff Waters, Kansas City (Mo.) *Star*.

Mid-Atlantic Newspaper Mechanical Conf.—1961 Conf., Penn-Sheraton Hotel, Pittsburgh, Mar. 23-25. Gen. Mgr. G. Richard Dew, 2717 N. Front St., Harrisburg, Pa.

National Assn. of Litho Clubs, Inc.—1961 Conv., Biltmore Hotel, Dayton, O., May 4-6. Exec. Secy. Edward M. Harwood, 430 S. Clark St., Chicago 5.

National Assn. of Photo-Lithographers—1961 Conv., Hotel Commodore, New York, Sept. 27-30. Exec. Dir. Walter E. Soderstrom, 317 W. 45th St., New York 36, New York.

National Paper Trade Assn.—1961 Confs., Waldorf Astoria, New York, Mar. 26-29; Conrad Hilton Hotel, Chicago, Oct. 31-Nov. 3. Exec. Secy. O. Glenn Leach, 220 E. 42nd St., New York 17.

New MORRISON SLUG-STRIPPER

New MORRISON SAW

Buy them Individually

or as

TWO Machines in ONE

Morrison SLUG-STRIPPER-SAW Combination

SLUG STRIPPER

A new, compact, design, built for quality performance at low cost, the MORRISON SLUG STRIPPER saves mortising time, simplifies plate corrections and special composition problems. With Micrometer-Gauge accuracy it cuts Linotype, Intertype, Ludlow, or Nebitype slugs to any height — for zincs, halftones, stereos. Handles slugs from 1 point to 72 points, from single character to 30 picas in length.

SLUG SAW

The new MORRISON SAW, mounted on the standard, slimmed, space-saving cabinet, is designed for accurate, fast, and safe sawing and cutting. It features the Morrison "Behind the Gauge" workholder assembly which has added so much to labor-saving performance and safety in the composing room. Particularly handy for ad alley, correction bank, make-up or as a compact auxiliary saw in any composing room spot.

Write for the Complete Story.

SLUG STRIPPER SLUG SAW or COMBINATION

Buy them as you need them. If your work requires a Slug Stripper full time, buy the Slug Stripper. If you need a compact auxiliary saw full time, buy the S.S. Saw. If you need both part time, buy the Morrison Slug-Stripper-Saw Combination. Combine BOTH Machines for DOUBLE-DUTY at only slightly more cost than ONE. Change from Saw to Slug Stripper or Vice Versa in 5 seconds.

MORRISON

Symbol of Operating Economy

THE MORRISON COMPANY

Dept. P., 125 W. Melvina St., Milwaukee 12, Wis.

For More Information Circle 127 on Reader Service Card

National Printing Equipment Assn., Inc.—1961 Meeting, Pittsburgh Hilton Hotel, Pittsburgh, Oct. 10-11. Exec. Secy. Harry L. Gage, 140 Nassau St., New York 38.

National Safety Council Printing and Publishing Section—Staff Rep. Harry C. Johnson, National Safety Council, 425 N. Michigan Ave., Chicago 11.

New England Daily Newspaper Composing Room Executives Assn.—Exec. Secy. Lewis R. Greene, Westerly (R.I.) *Sun*.

New England Newspaper Mechanical Conf.—1961 Conf., Hotel Statler Hilton Boston, Oct. 21-22. Secy.-Treas. Walter C. Crighton, New London (Conn.) *Day*.

North Carolina Press Assn. Mechanical Conf.—1961 Conf., North Carolina State College, Raleigh, N. C., Mar. 18-19. Miss Peggy Chears, P. O. Box 5125, Raleigh, N. C.

Northwest Mechanical Conf.—1961 Conf., Hotel St. Paul, St. Paul, Mar. 4-6. Secy.-Treas. Ralph N. Carson, Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.

Pacific Newspaper Mechanical Conf.—1961 Conf., Jack Tar Hotel, San Francisco, Sept. 8-10. Secy. Edward J. Maggi, Phillips & Van Orden Co., Fourth & Berry Sts., San Francisco.

Packaging Institute Assn.—1961 Meeting, Biltmore Hotel, New York, Oct. 18-22. Exec. Dir. Chas. A. Feld, 342 Madison Ave., New York 17.

Printing Industry of America—1961 Conv., Statler Hilton Hotel, Pittsburgh, Oct. 9-14. Gen. Mgr. Bernard Taymans, 5728 Connecticut Ave. N. W., Washington 15, D. C.

Research and Engineering Council—1961 Meeting, Hotel Fort Des Moines, Des Moines, Ia., May 22-24. Managing Dir. Robert E. Rossell, 1411 K St., N.W., Washington 5, D. C.

Screen Process Printing Assn., Intl.—Exec. Secy. Robert H. Blundred, 549 W. Randolph St., Chicago 6.

SNPA (Eastern Div.) Mechanical Conf.—1961 Conf., Hotel Dinkler-Plaza, Atlanta, Aug. 6-8. Secy. James B. Brotbeck, P. O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conf.—1961 Conf., Hotel Adolphus, Dallas, Mar. 5-7. Secy. Claude V. Capers, P. O. Box 1569, Chattanooga 1, Tenn.

Southern Graphic Arts Assn.—1961 Conf., Hotel Dinkler-Andrew Jackson, Nashville, Tenn., May 3-5. Secy. Charles E. Kennedy, 1514 South St., Nashville 2, Tenn.

Technical Assn. of the Graphic Arts—1961 Conf., Deshler-Hilton Hotel, Columbus, O., June 11-14. Exec. Secy. Earl Sundeen, P. O. Box 3064, Federal Station, Rochester 4, N. Y.

More Proof That You Can Do Almost Anything With a SCOTT Press!

Serving Southeastern Ohio for Three Generations

The Times Recorder

Morning and Sunday

PUBLISHED BY THE ZANESVILLE PUBLISHING CO.

Telephone GL 2-4561

34 South Fourth Street
ZANESVILLE, OHIO

August 3, 1960

Mr. Charles Wyman
Walter Scott & Co.
Plainfield, N. Jer.

Dear Charlie:

We had a run this morning that was a little unusual for us and I believe for anybody else with similar equipment. I thought either you or some of the fellows at Scott might be interested in it.

We had an advertiser request spot color on the two center spread pages and process color on the preceeding right hand page. This meant printing the same sheet on both sides.

We print more pages on our first run than the others as we accept advertising from Southeastern Ohio where that run goes. We, therefore had 24 pages 12-12 on the first run and 20 pages 10-10 on the others. We ran this collect and I am enclosing a print of how we had to web the press. We ran a half roll in #4 unit all the way and a full and then a three-quarter in number 2. I am also enclosing a couple of tear-sheets of how it turned out.

We didn't have one minute trouble with anything on the entire run. Just more proof that you can do almost anything with the Scott. I know that this type of run is not unusual in a larger city where they have more equipment but it is pretty good for us.

Best personal regards

Yours truly,

Bob Frame

FLEXIBILITY... TO MEET EVERY DEMAND

The TIMES-RECORDER is printed on 4 SCOTT black and white units equipped with double folder, reversible color couple and reversing drives for maximum flexibility in spot and multi-color printing.

SCOTT Press Units are built to serve the specific needs of each user. Full provision is made for the flexible use of color...spot, ROP and multi-color. SCOTT units meet every demand for high speed, economical newspaper production.

This letter from The TIMES-RECORDER is typical of many others from SCOTT clients, coast-to-coast. If your plant needs modernization, by all means let a SCOTT engineer help you solve the problem.

WALTER SCOTT & CO.
DIVISION OF WOOD NEWSPAPER MACHINERY CORPORATION Plant: Plainfield, N. J.

EXECUTIVE & SALES OFFICE:
501 FIFTH AVE., NEW YORK 17

SCOTT presses

BUILDERS OF PRESSROOM AND REELROOM MACHINERY AND EQUIPMENT SINCE 1875

For More Information Circle 156 on Reader Service Card

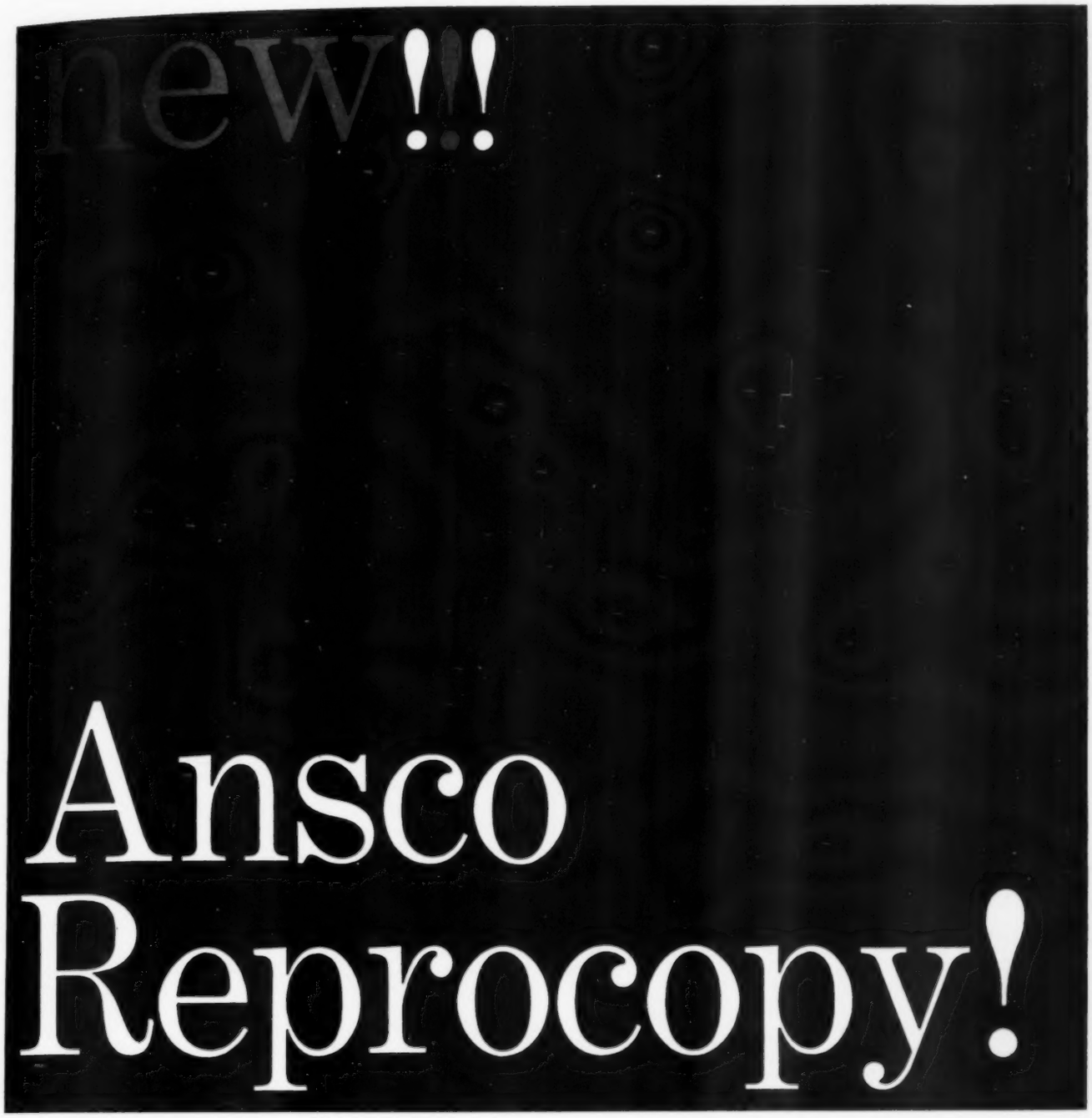
It's a cinch that *fast* production revolves round fast circulation of matrices . . . and Linotype's new Mat-Glide system with Airflow delivery guarantees *top* speed, *smooth* speed and *dependable* speed!

The Mat-Glide system encompasses important changes in the second elevator, delivery slide and transfer mechanisms. It's at the heart of the new Comet 300, the world's most productive linecasting machine. And here's *more* profit: ultra-fast, Mat-Glide action is so smooth it preserves matrix life, and machine life too!

Ask your Linotype Production Engineer for more details, or write to Mergenthaler Linotype Company, 29 Ryerson Street, Brooklyn 5, New York.

• LINOTYPE • COMET 300

For More Information Circle 116 on Reader Service Card



Now available—popular Reprolith® Ortho Type B emulsion coated on a high quality translucent paper base for greater cost savings on mass production line work!

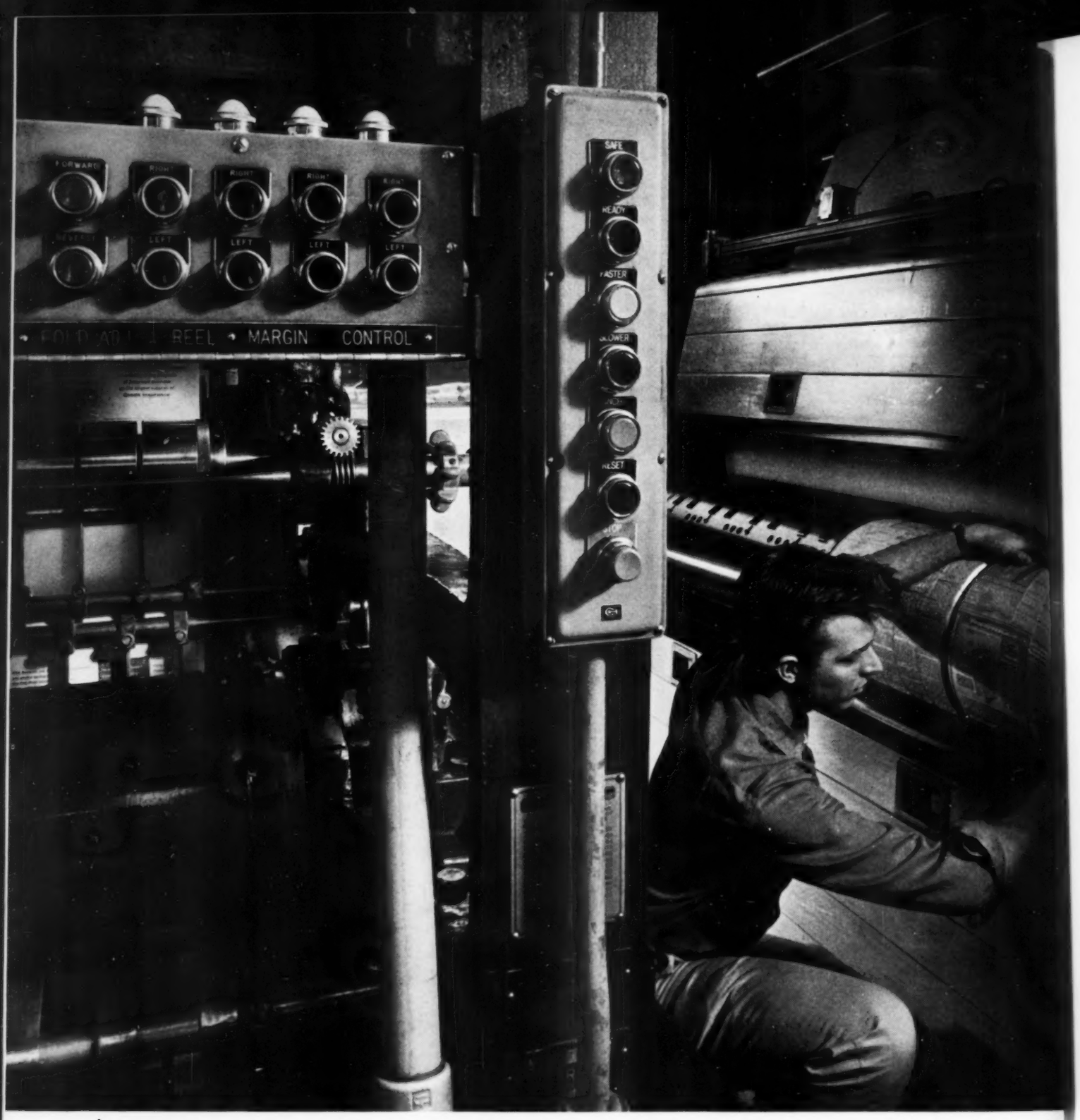
Reprocopy will provide all the advantages of the fast, orthochromatic Reprolith Ortho Type B emulsion plus the low-cost benefits of a high quality translucent paper base that's perfect for those low-budget line jobs.

New Ansco Reprocopy responds perfectly to filtration, yet is fast enough to permit short exposures and a high rate of production. And Reprocopy can be used with either a vacuum back or on a glass plate using Ansco Stay-flat solution.

Maximum photographic density of 3 plus is achieved in only 2 minutes of developing in Ansco Reprodol® Developer. Contact your local Ansco representative today for further information. Ansco, Binghamton, N. Y., A Division of General Aniline & Film Corp.

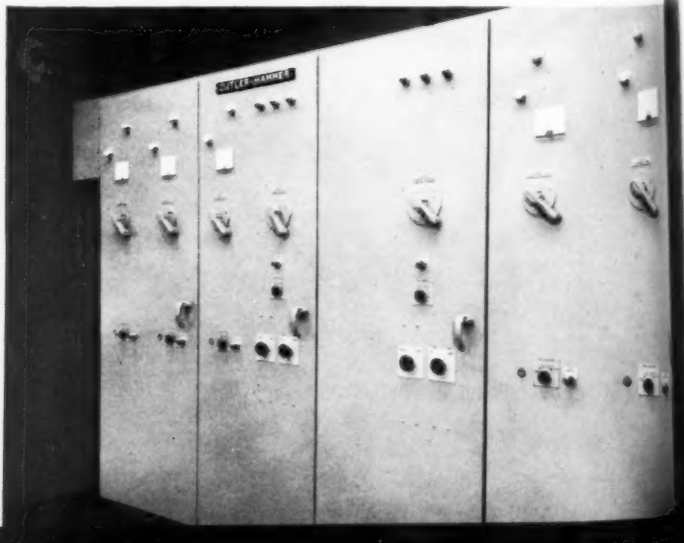
Ansco
Reprocopy

For More Information Circle 15 on Reader Service Card



Ultra-modern unit presses (shown in two views above and below) operate in stepless speed increases to a maximum production of 70,000 Wall Street Journals per hour. Cutler-Hammer static conversion to D-c means maximum control, minimum maintenance.

Unit design of Webmaster means additional equipment can be installed in a minimum of time. Additional modular control sections can be coupled to existing installations without requiring major modifications or complete control re-design.



Cutler-Hammer D-c Webmaster Drives specified in new automated Wall Street Journal Plants

Cutler-Hammer Control and conveyors help the Journal solve problems of delivering a daily paper—nationwide

Wall Street Journal has all the production problems of a daily newspaper—plus the problems of *national* distribution.

To help alleviate these problems, the Journal recently opened two new, highly automated printing plants—one in Cleveland, the other in Chicopee Falls, Mass.

They contain some of the most advanced automatic equipment available including new Hoe Colormatic presses, capable of producing up to 70,000 papers an hour.

To control these presses, the Journal selected Cutler-Hammer Webmaster D-c Unit Press Drives—one for each press. Webmaster's static conversion of electric power produces stepless speed control from inching to top speed. Static power means greatly reduced maintenance; there are no moving parts in the conversion system.

The conveyors coming from the presses are electronically controlled by Cutler-Hammer, so that conveyor speed matches press speed. The Cutler-Hammer conveyors and custom-built delivery table contribute in meeting the complicated and specialized distribution problems of this national newspaper.

Let Cutler-Hammer supply you with the control you need. And be sure to specify Cutler-Hammer Control on the next equipment you buy. A Cutler-Hammer sales office is near you.

WHAT'S NEW? ASK...

CUTLER-HAMMER

Cutler-Hammer Inc., Milwaukee, Wisconsin • Division: Airborne Instruments Laboratory • Subsidiary: Cutler-Hammer International, C. A. • Associates: Canadian Cutler-Hammer, Ltd.; Cutler-Hammer Mexicana, S. A.

For More Information Circle 47 on Reader Service Card

Now You Can Try The Beautiful New

BLUE RIBBON CONTRAST MAT

Instantly Popular With All Users

BLUE RIBBON*

*REG. U.S. PAT. OFFICE

The Contrast is an entirely new mat in the Blue Ribbon Line featuring Color Contrast with Beautiful Reproduction ★ Ample Casts ★ Fine Release ★ Accurate Register

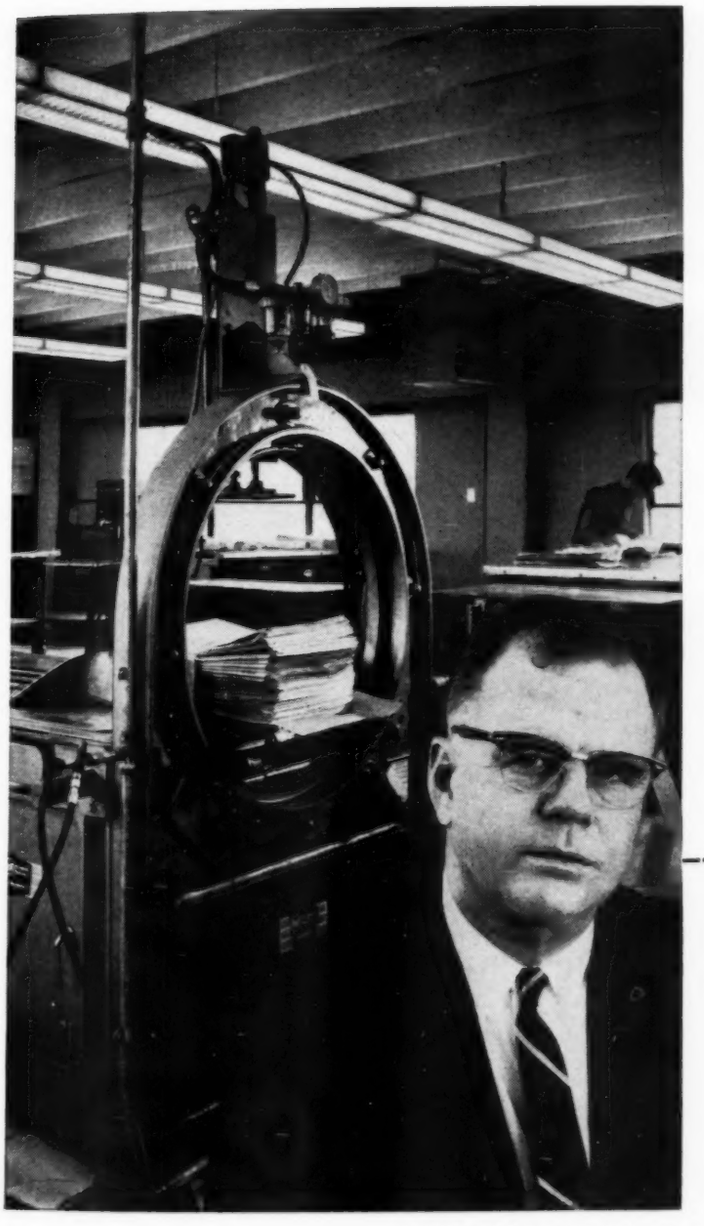
FOR SAMPLES or DEMONSTRATIONS, WRITE:

CERTIFIED DRY MAT CORPORATION
555 Fifth Avenue New York 17, N.Y.

For More Information Circle 36 on Reader Service Card

IT'S BOUND TO BE BETTER WITH USS STEEL STRAPPING

"This automatic Round Steel Strapping machine doubles wrapping capacity, and cuts strapping costs in half."



"Since we installed the new Model 1200 Automatic Strapping Machine, we have jumped our capacity from 10 to 21 bundles per minute," says Mr. W. R. Cummins, Circulation Director, The Pensacola News-Journal Company, Pensacola, Florida. "And with our previous semi-automatic model we used twice as much round strapping. The new Model 1200 makes a tighter, more compact bundle, and we are now able to use one, rather than two strapping ties."

"With this new machine our circulation can jump to 115,000 without adding help," continued Mr. Cummins. "And since we installed the Model 1200, we've had trouble-free service."

The completely automatic Model 1200 compresses, wraps, tensions, and ties both small and large newspaper bundles with lightweight, high tensile, 18-gauge Round Steel Strapping. This strapping is economical and it holds papers securely. The Pensacola News-Journal Company chose this machine because, like all U. S. Steel Supply installations, it's dependable and it's backed up by always-available, technical service and assistance.

For further information about the advantages of USS Steel Strapping, both round and flat, and the applications of our automatic, semi-automatic, powerized and manually operated tying machines, please send the coupon.

USS TRADEMARK

U. S. Steel Supply
Division of
United States Steel

U. S. Steel Supply
U. S. Steel Corporation
208 South LaSalle Street
Chicago 4, Illinois

☐ Please send me a copy of your free Sweet's Catalog Insert
☐ Please have a Strapping Specialist call

Name _____

Company _____

Address _____

City _____ Zone ____ State _____

For More Information Circle 70 on Reader Service Card

CHEMCO
POWERLITH
DEVELOPER
MONO-CONCENTRATE*

. Mono-Concentrate* Developer

One-solution Liquid Litho Developer Eliminates A and B from the Darkroom.

Chemco's new Powerlith® Developer **Mono-Concentrate*** is truly a breakthrough in photomechanical reproduction chemistry. For almost a quarter-century, two-part, A and B formulas have been traditional as developers for litho type film emulsions.

Now, Chemco introduces **Mono-Concentrate***, a single solution developer which not only eliminates the problems inherent in two-part solutions, but offers these other major benefits:

1. *Maximum convenience* . . . no more mixing at all! Just add liquid **Mono-Concentrate*** to water. You can prepare a tray to working temperature, ready for use, in less than one minute.
2. *Greater economy* . . . a single 5-gallon Cubitainer of **Mono-Concentrate** makes up to 25 gallons working developer. Economical pricing provides smaller users with savings available up to now only to large, bulk volume buyers. Unique, self-replenishing feature can bring additional savings of more than 35%.
3. *Longer tray life* . . . **Mono-Concentrate** lasts longer and develops more film than other litho film developers, is less affected by aerial oxidation.
4. *Superior quality* . . . successfully combines long tray life economy with highest contrast and density. Saves opaquing time by eliminating pinholes. No dry chemical powder to settle on negative and produce troublesome spots.
5. *Flexibility* . . . by simply adjusting the dilution ratio, any practical developing time can be achieved at any desired temperature. **Mono-Concentrate** can be diluted to match perfectly your own darkroom procedures.
6. *Easy self-replenishing* . . . when developing time increases due to loss of developer strength, the addition of a small amount of undiluted **Mono-Concentrate** will bring the bath back to its original full strength. This saves time, money and insures uniform negatives without varying developing time.
7. *Indefinite shelf life* . . . **Mono-Concentrate** cannot deteriorate before it is added to water. Cubitainer packaging allows easy, compact storage right in the darkroom.

These advantages add up to better negatives developed at lower cost . . . produced quicker and easier than with any other developer. For the complete story, write for Chemco Technical Bulletin No. 10. Better yet, order a 5-gallon trial supply today. We guarantee your complete satisfaction or your money back. For best results, team **Mono-Concentrate** with Chemco Power-Fix, also packed and dispensed from a Cubitainer.

Chemco's new Powerlith Developer **Mono-Concentrate** comes in 5-gallon Cubitainers, makes up to 25 gallons of working solution. Just insert Chemco Probe Dispenser, pour **Mono-Concentrate** into water. Nothing easier, nothing better.

chemco

CHEMCO PHOTOPRODUCTS COMPANY, INC., Main Office and Plant — Glen Cove, N. Y.

ATLANTA, BOSTON, CHICAGO, CLEVELAND, DALLAS, LOS ANGELES, NEW ORLEANS, NEW YORK

*Trademark, Patent Pending

For More Information Circle 40 on Reader Service Card

NO PACKING...

a new era

The introduction of Super Flongs, the one-piece mats that eliminate the need for packing, opened a new era in stereotyping.

Super Flongs have proved a valuable aid to the stereotype craftsman, whose work is so largely responsible for his newspaper's good appearance. With adequate space depth for producing perfect plates, Super Flongs make his job easier and at the same time, help to produce a better-looking newspaper.

Ask around . . . in the stereotype departments of the world's best-looking newspapers.

ONE-PIECE SUPER FLONG *NO-PACK MAT*
A NEW ERA IN STEREOTYPING

WOOD FLONG CORPORATION

HOOSICK FALLS, NEW YORK
NEW YORK OFFICE: 551 FIFTH AVE.; PHONE: MU 7-2950
SERVING THE GRAPHIC ARTS INDUSTRY EXCLUSIVELY SINCE 1911

WOOD FLONG

For More Information Circle 189 on Reader Service Card

the WOOD tensionplate supermatic

Designed for use with tensionplate type cylinder plate lockup

Produces
3½
Finished Plates
or better
per minute
Automatically

Features of the Tensionplate Supermatic

Casting box tilts for more convenient mat setting.

Automatic mat stripping.

Counter is pre-set for desired number of plates.

Electro-Pneumatic Metal Pump complete with Safety Features and Automatic Timer.

Pump Spout Heaters thermostatically controlled.

Automatic movement of plate from shaving arch to cooling stand and milling station.

Machine shuts off automatically.

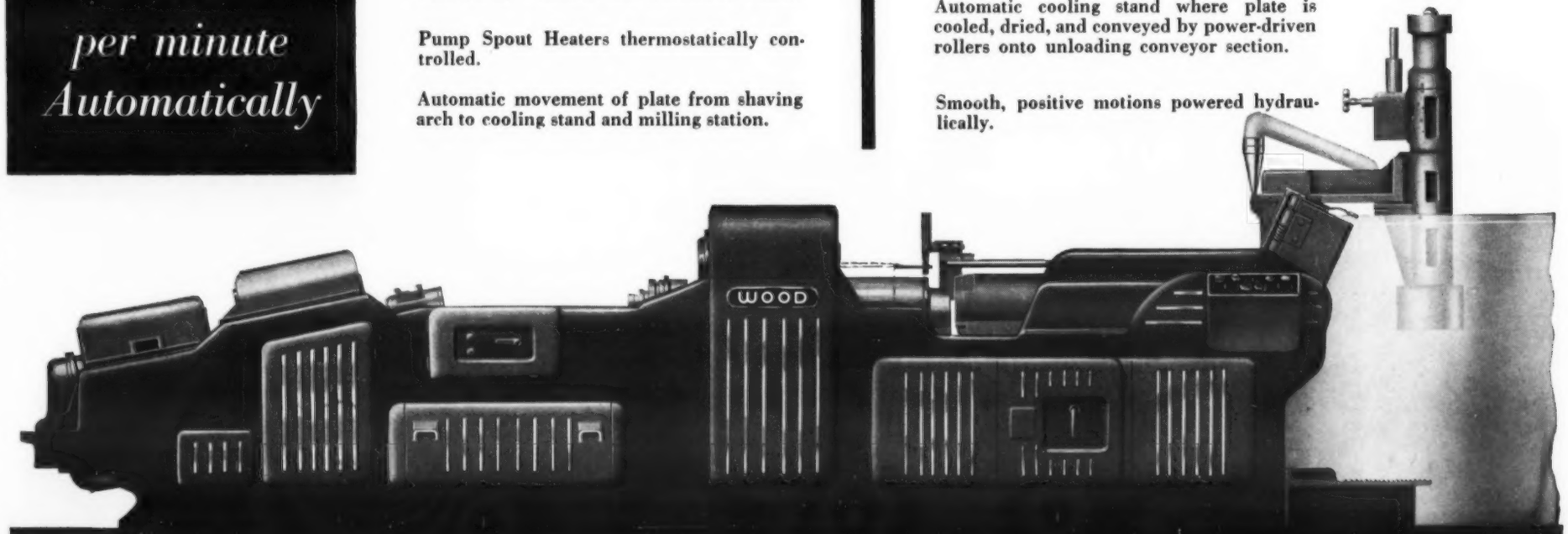
Automatic tail ejection.

Water supply thermostatically controlled.

Automatic plate traverse mechanism propels plate and positions it in the shaving arch.

Automatic cooling stand where plate is cooled, dried, and conveyed by power-driven rollers onto unloading conveyor section.

Smooth, positive motions powered hydraulically.



WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY • Executive & Sales Office: 501 Fifth Avenue, N. Y. 17.

Send for illustrated brochure.

For More Information Circle 237 on Reader Service Card

HELPFUL LITERATURE

FOLDERS · Sales Aids · Instruction Sheets · BULLETINS · Catalogs · BOOKLETS · Brochures

Circle Numbers on Reader Service Card in This Issue

Keep Yourself Informed. The folders and bulletins listed below all pertain to modern equipment, supplies, processes and/or methods. These have been prepared especially for plant managers, superintendents and foremen. Please circle the numbers on the Reader Service Card in this issue for the bulletins you wish to receive. Drop the self-addressed card in the mail. PRINTING PRODUCTION will forward your request.

Composing Room

KEMP IMMERSION MELTING POTS

Benefits of installing immersion melting pots are discussed in a booklet published by C. M. Kemp Mfg. Co. Listed and described in the booklet is the company's entire line of melting and remelting equipment from automatic metal-loaders with color-coded carrying cars to melting pots of various shapes. The appendix contains helpful information on safety control for pots and facts about hoods, flues, type metals and casting rate. Circle No. 309 on Reader Service Card.

AIDS FOR PERFORATED TAPE COMPOSITION

Two electronic aids for perforated tape composition are discussed in a pamphlet issued by Shaffstall Equipment, Inc. The "mat detective" unit is said to insure that every line cast will be complete. The other device is the Selectro-Spacer which signals the insertion of thin or en spaces for correct line justification. Each of these units is illustrated and its operation described in the literature. Circle No. 320 on Reader Service Card.

MONOMATIC CASTING MACHINE

The features and operation of the Monomatic casting machine are described and illustrated in a folder prepared by Lanston Monotype Co., Div. of Lanston Industries, Inc. The machine matrix case incorporates 324 matrix positions and is said to be capable of casting all high and low spaces of any unit value. Included in the literature is a diagram showing the positions of the various operating parts of the Monotype. Circle No. 316 on Reader Card.

TYPOGRAPHIC AND NUMBERING MACHINES

A folder describing and illustrating 19 typographic and numbering machines has been made available by Atlantic Numbering Machine Co. Included are low plunger units designed for Heidelberg cylinder and platen presses and machines developed for use with small offset presses. Circle No. 333 on Reader Service Card.

Platemaking

HOW TO USE MAGENTA CONTACT SCREEN

How to Use Kodak Magenta Contact Screen is the subject of a 24 page booklet offered by Eastman Kodak Co. Suggestions concerning equipment necessary to use with the screen are made in the publication. Information is included on cutting and angling screens and on constructing screens. Circle No. 307 on Reader Service Card.

FILMOSTAT CAMERA

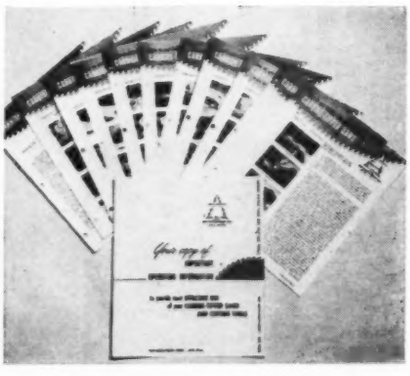
The FilmoStat (a stat camera, film process camera, enlarger, contact printer and lucy) is described in an eight page booklet made available by Statmaster Corporation. The machine, which is available with or without a portable darkroom, may be used to produce stats, copy-prints, copy-negatives, film negatives and prints, screen Veloxes and halftone prints. Circle No. 319 on Reader Service Card.

FILING CABINETS AND STRIPPING TABLES

The Colight line of stripping and opaquing tables and filing cabinets is described in a catalog published by Colight Litho Products, Inc. Circle No. 321 on Reader Service Card.

INCANDESCENT CAMERA LAMP

Specifications of the new Macbeth 850 incandescent Graphic Arts lamp are listed in literature published by Macbeth Arc Lamp Co. Incorporated in the lamp is the iodine cycle quartzline tube developed by General Electric Co., which is said to eliminate bulb blackening. Circle No. 322 on Reader Service Card.



Twelve bulletins dealing with the use of carbide-tipped saws in the Graphic Arts industry will be published at regular intervals by North American Products Corp. The bulletins are intended to be compiled into a manual dealing with problems such as chip and slug throwing and correct blade alignment. Circle No. 314 on Reader Service Card.

IMPERIAL VITACOLD AND VITACOAT

Vitacold cold top enamel and Vitacoat plastic base are described in literature issued by Imperial Type Metal Co. According to the sponsor, Vitacold is especially designed for powderless etching. Vitacoat is said to have a low development and burn-in time and was developed especially for powderless etching processes. Circle No. 324 on Reader Service Card.

MOLDING MATERIAL SAMPLES

Samples of stereotype molding and casting materials are offered by Midwest Publishers Supply Co. Measuring 1 in. by 2 in., samples are attached to a specification bulletin. Armstrong Creeper, Nylon sheets, Stereofelt, aluminum casting board and Fabreeka molder are among the sample materials. Circle No. 323 on Reader Card.

Pressroom

POLYFIBRON OFFSET PRESS BLANKET

An information sheet on which is described the new Polyfibron offset press blanket is available from Dewey and Almy Chemical Div., W. R. Grace & Co. Features of the blanket include a removable blanket face and a re-usable blanket backer. Circle No. 308 on Reader Service Card.

COLORS OF HOLLAND INKS

A booklet which contains swatches of the various colors of Holland inks has been published by Van Son Holland Ink Corp. of America. Descriptions of the inks and instructions for using additives are included. Circle No. 311 on Reader Card.

CIRCULAR POCKET-SIZE SLIDE RULE

A circular pocket-size slide rule has been made available upon request from General Industrial Co. Instructions for using the rule to multiply, divide and find proportions accompany the rule. To obtain a circular slide rule, write, on your letterhead, to: General Industrial Co., 1788J Montrose Ave., Chicago 13.

Miscellaneous

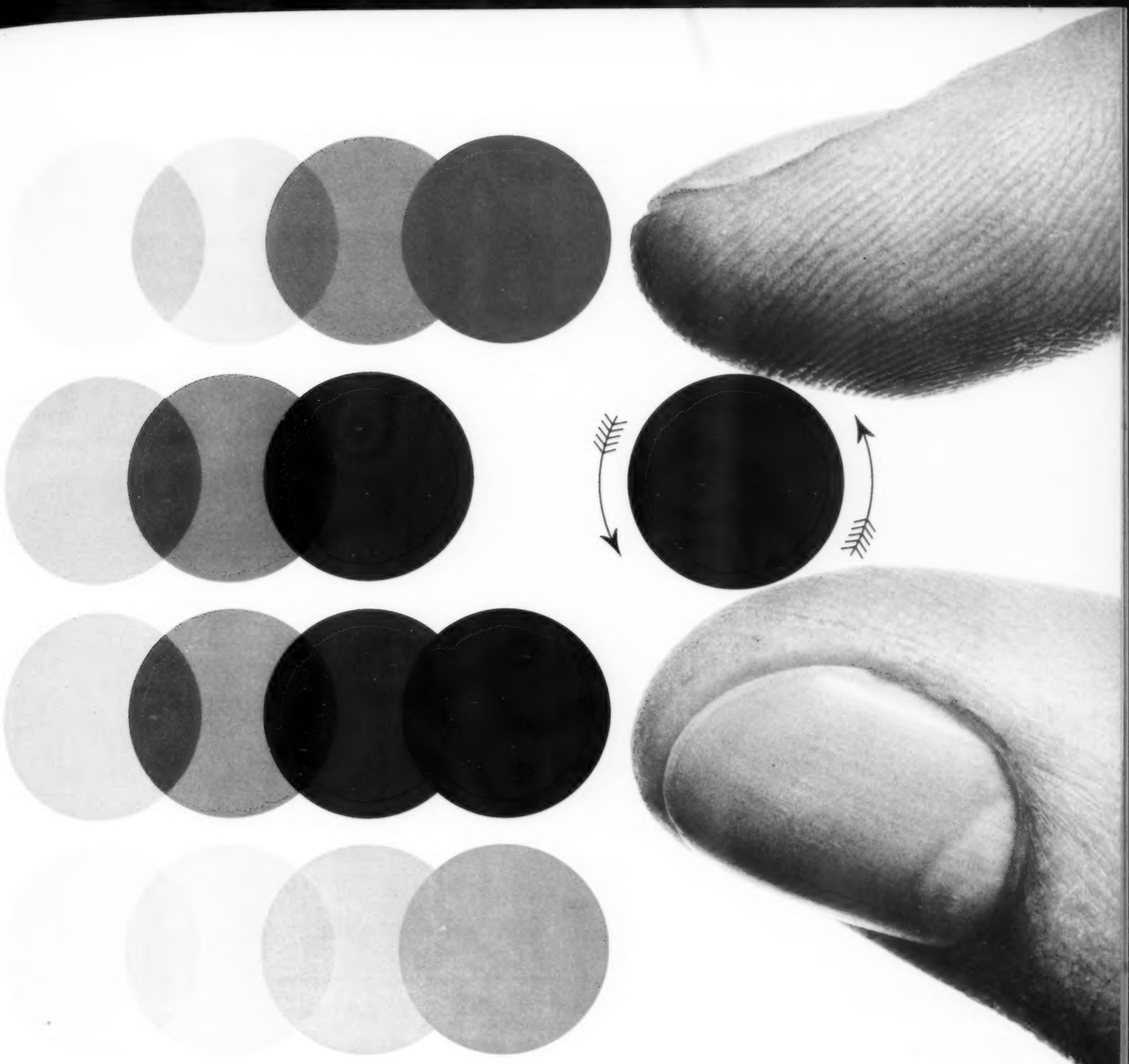
SCREEN PROCESS PRINTING SUPPLIES

Supplies available for the screen process industry are listed in a catalog published by Atlas Silk Screen Supply Co. Included are book cover inks, paints, silk, photo screens and other supplies essential to the industry. Circle No. 334 on Reader Service Card.

SIGNODE STEEL STRAPPING MACHINES

An interesting eight page bulletin has been issued by Signode Steel Strapping Machine Co. Fourteen machine models are used for compressed strapping of bundles, bales and palletized loads. Power requirements, dimensions, platen openings and other factors affecting model selection are charted. Circle No. 335 on Reader Service Card.

(*Continued on Page* 106)



TOUCH CONTROL HIGH FIDELITY AT 70,000 PPH

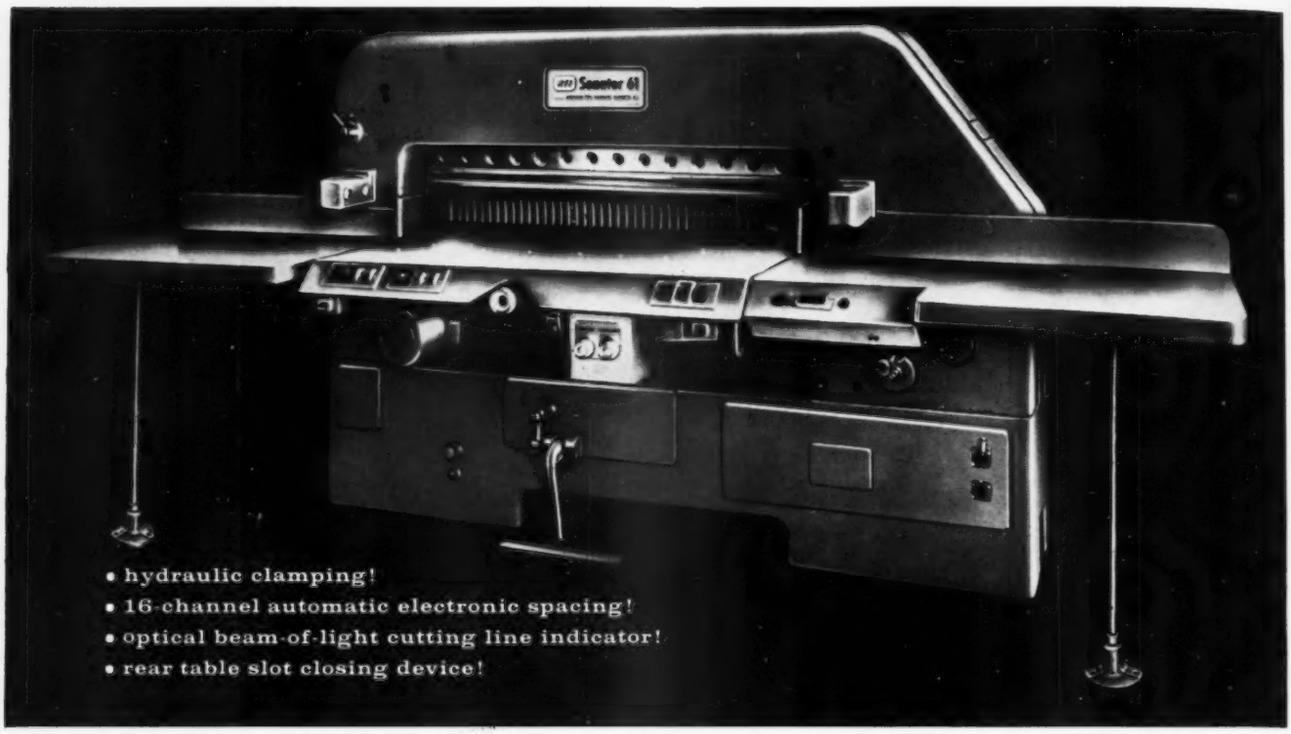
Hoe bows to few, if any, in its appreciation of printing craftsmanship. Thus, Hoe seeks to aid the craftsman's chosen skill and simplify his task. And the Colormatic* is a press unit that makes printing a science as well as an art. One of many major Colormatic features is individual column Touch Control of inking. It is part of a unique ink motion system that insures maximum reproduction fidelity of black-and-white, ROP spot, and process color. The patented ink pump feature—offered only by R. Hoe & Co., Inc.—means that adjustment at any one speed insures equal reproduction quality at any other speeds. All this at 70,000 PPH, if your deadlines require it. Newspaper readership throughout the United States is at an all-time high, and so are the standards by which modern newspapers are printed. Hoe plays its part by building a bit of tomorrow into today's printing equipment. Look to Hoe for progress in printing. R. HOE & Co., Inc., 910 East 138th Street, New York 54, New York.

HOE

*TRADEMARK

accurate **fast** easy to run

the new 61″ ATF SENATOR CUTTER


• hydraulic clamping!
• 16-channel automatic electronic spacing!
• optical beam-of-light cutting line indicator!
• rear table slot closing device!

Sixteen different jobs can be quickly push-button recorded for automatic electronic spacing. All signals are instantly entered on magnetic tape—and can be recorded, repeated or erased in moments.

Clamping is fully hydraulic with built-in clamp lead for excess air removal before the knife cut. Clamping pressure is readily adjustable at eye level and ranges from 660 to 11,000 lbs. for all stock requirements.

An optical beam-of-light cutting-line indicator casts a helpful ray of light upon the sheet, right where the knife will cut. Rear table slot is automatically closed so that edges of sheets do not get caught when pile is moved.

In addition, the new 61″ ATF Senator Cutter has all the features which are making the 42″ and 52″ ATF Senator Cutters so outstandingly successful and popular. Precision spacing is accurate to within .002″. Everything is done by push buttons located on the front panel.

You also will have the advantages and protection of an air film center table and blower, a photocell safety device, New York State-approved non-repeat safety bolt, tip-toe safety treadle, patent cutting stick and cutting strips. Everything you need to give you a completely modern and safe cutting operation.

Our Product Bulletin gives you the complete specifications and operating details on the new 61″ ATF Senator Cutter. Full details are also available on the popular 32″, and 42″, and 52″ cutters. Or, ask for a demonstration on this exciting new time-and money-saving equipment.

ATF

AMERICAN TYPE FOUNDERS

200 Elmora Avenue, Elizabeth, N. J.

ATF Type Faces used in this advertisement: HEADS: Craw Clarendon TEXT: Bodoni Book

For More Information Circle 10 on Reader Service Card

PRINTING PRODUCTION

Carnegie Pursues 'New Dimensions' in Education

"New dimensions" in the education of Graphic Arts managers is the goal of Carnegie Institute of Technology. The phrase fits well with the country's "new frontiers" because this college has planned a program with long range objectives in mind. The educators feel that the future Carnegie grad, after actual plant management experience, will be better prepared to cope with economic, administrative and technical decisions.

There were some who voiced approval of the new program last month in our Letters to the Editor. There is, however, an unquestionable division of opinion on the proper education course to follow. Who is right—those who want a liberal training with emphasis on theory, or those who advocate a practical technical program which includes a balance of classroom, lab and shop training?

The young prospective student should not have to answer the question. Rather, he must be guided by mature, experienced industry people who understand what is past and present, and who possess a clear idea of what is needed for the future.

Carnegie Tech educators observe that Graphic Arts processes are becoming more complex technically and their statement is entirely correct. However, only 43% of the Carnegie program is concentrated on these complexities and a large portion of this percentage is devoted to management and design subjects. The college will devote 13% of its new program to design, calligraphy and drawing—the need for which we question in printing management education.

Carnegie Tech also insists that much of the practical training of the future Graphic Arts manager inevitably must be acquired through direct experience in initial employment. Most businessmen we know are not prepared to accept this version of employment preparedness.

California State Polytechnic College quotes a business leader as saying: "The pressure of competition in industry doesn't allow for time to train college graduates in the practical application of theory. . . . General engineering educations, though providing broad backgrounds, require too much on-the-job training."

There is a need now, and this need will multiply, for highly trained Graphic Arts specialists who can cope with the processes which abound in the printing industry. Carnegie Tech will continue to contribute to this need, but to do this effectively it may require some adjustments in its overall new program to meet the "new dimensions" goal.

By HAVILAND F. REVES,
Staff Correspondent

Wedding of Type and Dycril For Printing Platemaking Is Happy Venture, Reports Detroit Typographic Firm

LEVISON, Sr.

LEVISON, Jr.

MAJOR speedup of production schedules, increased flexibility in various process stages, and important economies resulted after introduction of Dycril platemaking at Michigan Typesetting Co., Detroit. According to a company spokesman, a year's experience has produced very few problems for which answers have not been found.

The decision of this typesetting firm to move into a field seemingly alien to its normal area of operation was made as a key step in a general program of expanding services. Probably it is symptomatic of a growing trend among typesetters to spread into platemaking services.

"Working back from Dycril, we are a department store of Graphic Arts services," says Syd Levison, president. The company had been strictly a typesetter for a long time until about two years ago. At that time, several departments were added. These were offset platemaking, keylining and assembly, Ozalid reproduction, photographic typesetting and complete photographic facilities for printing. Then came Dycril, with equipment installed and placed in production in November 1959. Incidentally, the company does not seek to sell the art work market as such. Art services are available only as its customers need them as part of the job, the end result being the Dycril plate.

Michigan Typesetting, as the parent company, has three subsidiaries which fit into the Dycril picture, each in competition with the others in various ways—Photo-Craft, Inc., Flexitype Corporation and Detroit Typesetting Co.

Interest in Dycril started when Robert Levison, son of the president and general manager of the company, attended a seminar at Carnegie Tech five years ago. Study followed until, in November 1959, the new installation was placed in production. The entire program of sales and application has been developed by John Egan, executive vice president in charge of sales.

"It is one of the greatest things occurring in our industry since machine composition," Syd Levison evaluates it.

Marriage of Type and Film

"Dycril fits into the hands of a typesetter. It centralizes preparation operations in one plant. The postwar era has brought about the marriage of type and film. What is more natural as a result of this marriage than being able to produce a printing plate?"

Conversely, he points out that Dycril could provide an entry for the electrotyper into the original platemaking field. The electrotyper's work hitherto has been chiefly in the making of duplicate plates, to which Dycril is also well adapted.

"Today we handle the entire job, from typesetting to finished offset or letterpress plates for many clients," commented Syd Levison. Continuing, he said: "Ours is the only firm we know of that has integrated all of the component parts or crafts needed in the production of advertising and printing.

"As a result of being 'into everything,' we are able to offer our clients real economy in time and money, because we are able to produce an entire job as a series of interrelated steps, in a single step-by-step process overnight.

"This enables us to give our clients complete service and effectively counters high preparation costs."

In a typical rush job, work may come in at 6 p.m., with typesetting completed by 10-11 p.m. Ordinarily, the customer would get proofs the following morning; then he would send the proofs out for keylining. When the job was returned, it would be sent to the printer, the printer would send the work to another company to have the offset plate made. The whole job could easily take a week.

Under the combined operation setup, Michigan Typesetting is now able to complete keylining by 1 a.m. on a comparable job; also, the company could have the offset plate made, or supply the customer with

silver prints the first thing in the morning. In the latter case, the customer can take the job to his own platemaker or have the work completed at Michigan Typesetting.

Fast Plate Production

"The Dycril plate does the same thing for the advertising agencies that the addition of these services has done for our printing customers," says John Egan. On the morning after an advertisement is received, the customer can be supplied with finished Ozalid proofs with all type and illustrations sized and in position, rather than being furnished type proofs with the art. In this case, the customer can still make changes and strip them into the negatives.

The next day, Michigan Typesetting can deliver the plate to the foundry for electros or mats. Or it can be sent to the printer, thus cutting two days off the overall production time.

"Agency customers tell us we are saving 50 to 55% of their total production cost," said John Egan. "The new plate brings the economies and flexibility of offset to the letterpress field. Printers who switched to offset in recent years and have their letterpresses standing idle can now use this equipment profitably."

An important incidental in connection with the Dycril plate is that Michigan Typesetting operates its own photocomposition department. According to Robert Levison, "Further production savings can be accomplished by setting type on a photocomposing machine. This is done by starting with a photo positive rather than a reproduction proof of a type form which must be photographed."

Learning Plate Processing

The availability of experienced personnel who knew the engraving field was a principal factor in this firm's success in learning the Dycril platemaking process. This was a matter of technological development and the ability of the people concerned where the opportunity for the future lay.

An 80 year old engraving company had a stable but not expanding business. The owners of this company made aware of the new installation at Michigan Typesetting, investigated and appraised the situation. Result was the decision that introduction of Dycril created a new field for technological growth. The owners decided to close up their long established business, and the entire staff came to Michigan Typesetting as a group.

Du Pont sent specialists to train the production people in the plant. Some of these men were in Detroit for days at a time, covering every phase of production. There would be one man training the camera workers, another training personnel in the platemaking phases at the same time. All pre-

OLD WAY

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
AGENCY PRODUCTION MAN	1. Copy to typesetter 2. Art to engraver	3. Route 1st type proofs thru agency 4. Returns corrected proofs to typesetter	5. Routes revised type proofs thru agency 6. OK's engravers proofs 7. Releases cuts and layout to typesetter	8. Route complete proofs thru agency 9. Client OK 10. Order quantities	11. OK Foundry 12. Ship plates
TYPESETTER	Sets type in position, blocking for cuts, pulls proofs.	Makes changes New type Proofs to agency.	Makes-up in complete form with cuts Complete proofs to agency.	Pulls quantity proofs.	Lock and releases form to foundry.
ENGRAVER		Makes Black and White cuts.			

NEW WAY

	MONDAY	TUESDAY	WEDNESDAY
AGENCY PRODUCTION MAN	1. Art and copy to Michigan Typesetting	2. Route complete silverprint thru agency. 3. Client OK 4. Return OK'd silverprint to Michigan	5. OK into Foundry 6. Ship plates
MICHIGAN TYPESETTING	Sets type in chunk—repros to Dycril Dept. Dycril shoots art to size, strips or keylines art and copy in position. Makes film negative of complete ad. Furnish high quality complete silverprints to agency.	Makes any alterations on negative—Makes Dycril plate and runs quantities.	Releases Dycril plate to foundry or deliver Dycril plate to printer.

After exposure, Dycril plate is placed in washout unit. The plate is given 7 to 8 min. treatment to obtain 0.040 in. non-printing area depth.

duction people concerned attended classes. Individual instruction was also given.

After a week of intensive training, the staff was ready to make plates. Following a few weeks of actual operating practice, they were able to turn out production plates.

Du Pont furnished capsulized technical training to give management people basic grounding in the new technique. Further special assistance was given in specific management areas. Included was assignment of an accountant to assist in setting up cost controls for the new process.

'Two of Everything'

Surprisingly little in the way of problems was encountered in the actual processing operations, as a result of this carefully planned preliminary training.

Equipment failure proved to be the principal obstacle. This was especially true at the start. This was met by installation of duplicate equipment. Robert Levison says that the best rule of thumb for this situation is "Have two of everything."

As the process was developed, modifications and improvements were made in the equipment designed for it.

This is all a part of the inevitable cost of participation in a new, though no longer really experimental development. Inevitably, unanticipated bugs develop. These can only be eliminated as they are encountered in production practice.

Dust control equipment was installed in all areas where photographic work was being performed. With Dycril plates, the presence of dust on the negative will show up on the finished product. Special attention to dust elimination is of paramount importance in both the platemaking operations and the camera phases.

In addition to the dust control system in specified critical areas, the entire plant is air conditioned, which tends to assist in this control. It is a company policy to provide optimum working conditions for employees, in the belief that this will enable and induce them to turn out their best work.

Michigan Typesetting enumerated advantages in the use of Dycril plates as follows:

(1) Since the Dycril plate is flat across the printing surface, it resulted in the reduction of press makeready time to nearly zero. Of course, if the plate is wood-mounted, there may be some makeready time required.

(2) Because of the much lighter weight of the Dycril plates, presses can be run faster. The weight of the Dycril plates is less than half that of the lead backed electrotype. This reduced weight also means that plates can be shipped at considerably less cost.

(3) Long runs have been satisfactory. Dycril plates produced by Michigan Typesetting have been run up to 1,500,000 impressions without showing noticeable wear except under magnification.

(4) Detail quality has been found to be excellent. Magnification shows that letter and dot structure is pyramid-shaped.

(5) Ink requirements for use with these plates have been reduced about one-third. This is because of the transfer qualities of the ink to the paper.

(6) The plastic nature of the plate has a protective quality. An accident that would damage an engraving or electrotype frequently has no effect upon the Dycril plate. A customer in Indiana reports a paper clip fell into a press during a run. As there were only about 60 more copies to be printed, the press was not stopped. At the end of the run, the impression of the paper clip between plate and cylinder had gradually disappeared.

(7) In the event of a plate smashup, another original plate can be made from the negative in 20 min. Or a second plate can be made in the same period if it is needed to print on another press or run two or more up.

(8) The economies of offset can be used for letterpress work in the making of this plate. The prin-

(*Continued on Page* 58)

Reveals New Engraving Method

RADIO CORP. of America has developed a process for making halftone and line photoengraved plates which eliminates the negative film step and reduces exposure time to a matter of seconds. It is a new application of the RCA-developed Electrofax principle which utilizes a photoconductive surface on a metal printing plate.

Results of the new Electrofax development were shown for the first time at the Great Lakes Newspaper Mechanical Conference held last month in Cincinnati. RCA officials promised the process would be developed further for lithographic plate applications.

How Plate is Made

Most any metal—zinc, copper, aluminum or magnesium—can be used with the Electrofax method. The plate exhibited in Cincinnati was made of zinc. It would be supplied to the photoengraver with a zinc oxide coating sensitized with fluorescein dye.

The plate is placed in the vacuum back of the camera. The plate is now made light sensitive by giving it a blanket negative electrostatic charge in the dark.

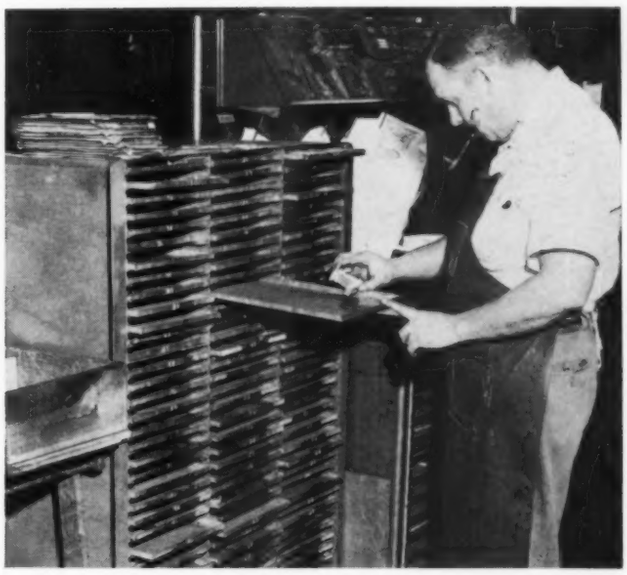
The plate, now sensitive to light, is exposed by any of the conventional photographic procedures using any hard copy—repro proofs, glossy photos, etc. The electrostatic charge is lost or reduced in the exposed areas to form a latent electrostatic charge image on the surface of the plate.

The latent image is developed by applying a pigmented powder carrying a positive electrostatic charge. This may be done with dry powder or from powder dispersed in a liquid. The powder is attracted and held by the negatively charged image areas.

The powder image is now fused in an oven. After fusing, the zinc oxide coating in the non-image areas is removed by a suitable solvent and the plate blown dry. Standard descum procedures are used to prepare the plate for etching.

The plate is to be field tested before being made commercially available.

The dispatch and control department of the Newark (O.) *Advocate* is a small but efficient operation. Kept on a simplified scale, the system helps three clerks to keep track of the many components of an ad.



Basis of the *Advocate's* system for handling ad components is a number system. Even the galleys containing material for the ad are numbered as shown here. It is an easy matter to locate type.

How We Operate A Newspaper Dispatch Room

By RAY L. BURDINE, *Adv. Production Mgr., Newark, (O.)* Advocate*

THE control and dispatch system we now have in operation is not a magic formula which solves all problems and neither did it evolve overnight.

It is the final result of studies of systems used by other newspapers. We used certain factors which were applicable to our operation and applied innovations of our own. Finally, through trial and error, we came up with the system in use today.

To say we have eliminated all the bugs would be a gross misstatement of facts. But you must consider that three years ago we were going to press anywhere from 2:45 to 3:15 p.m. or later. A gradual improvement has been noted, until today the average starting time is 2:10 p.m. This shows that something has been accomplished.

Naturally, there are other factors involved here such as better attention to deadlines, both in advertising and the news room. We have also happier advertisers and subscribers because of our advanced press time.

In the non-control days the ad salesman handled all mats, took care of the services, and ran the proofs. In fact, he was more of an errand boy than a salesman. Now he is able to devote this time to selling.

Through a filing and envelope system we now have an absolute check on all store mats, zincs, signs, and other material.

The dispatch department is adjacent to the advertising department, and also convenient to the composing room. It is a separate operation designed to expedite and control advertising from the advertising department to the composing room, through stereo, and back.

Large steel filing cabinets are used. Drawers and compartments are properly labeled. In these are kept in chronological order the various mat services, national advertising mats, etc. They are instantly available.

A numbered tray system is used to take care of all zincs, signature cuts, casts, etc., of each individual advertiser. Each advertiser has a designated number which is carried through on all control forms, envelopes, and even on trays in the composing room.

How the System Works

When dispatch receives the ad and any accompanying mats from advertising, the ad is immediately processed.

By this we mean dispatch personnel enter the name of the advertiser on the control sheet for the specific day the ad is to run. The proper number is also noted, the size of the ad, when the proof must be up, and whether it goes to the advertiser or salesman.

It should be noted that when advertising turns an ad over to dispatch, the name of the advertiser, the date to run, and the size of the ad are written on a control form similar to the form used in dispatch. When the markup desk receives the ad, this same information is again noted, thus giving us a triple check.

The day's newspaper is dummied from the control sheet in advertising. Makeup checks the ads in the dummy with the control sheet kept at the markup desk. With this method any missing ads or errors in scheduling can be immediately traced back through the various departments and subsequently straightened out.

(*Continued on Page* 74)

*From a talk given at last month's Great Lakes Newspaper Mechanical Conference held in Cincinnati.

Typesetting Takes Too Much Time

By FRANK DeWITT

"Any use of a human being in which less is demanded of him and less is attributed to him than his full status is a degradation and a waste. It is a degradation to a human being to chain him to an oar and use him as a source of power; but it is an almost equal degradation to assign him a purely repetitive task . . . which demands less than a millionth of his brain capacity." From Norbert Wiener's The Human Use of Human Beings, *published by Houghton Mifflin Co.*

MORE than half of the 300,000 skilled workers in the printing trades are engaged in composing room activities. At least half of their "productive" time is spent correcting errors or in keyboarding copy that has already been keyboarded at least once and probably several times.

There is also a considerable total of man hours consumed in the composing room because the technology available for typesetting is very old. Many operations are being done today precisely as they were 500 years ago. Over 90% of the remaining operations are being done on machines dating back about 70 years. Even the relatively modern tape control of slug casting is over 30 years old.

Stated very briefly, typesetting is repetitive, and almost every operation is based on old technology. The full attention of a skilled worker's mind and hands is consequently required for operations which could and should be automatic.

Almost every one of the 75,000 typesetting machines in this country could be operated from tape. However, less than 25% of the 13,500 slug casting machines in newspaper plants are equipped for tape operation. The percentage is even lower in commercial plants. The average production in ems per hour per operator per machine has probably increased less than 10% since the introduction of machine typesetting about 70 years ago.

Why is modern technology so conspicuously absent in the copy preparation and typesetting art? Why is physical manual labor a part of every one of the many operations from authorship to typecasting? Why is it necessary to employ persons with a high degree of mental ability and manual dexterity to perform monotonous and repetitive work?

The answer lies partly in our willingness to prepare mid-20th century masses of copy with machines designed in the 19th century. But this isn't the principal answer because these machines, properly controlled by tape, are still surprisingly economical in the production of type.

Need Integrated System

The main reason we are not getting twice or three times the production from presently available typesetting equipment is that we have not organized copy preparation and typesetting into a single integrated *system*. Many of the manual operations could be done with automatic equipment. We treat copy preparation as one job and typesetting as another although they are both part of the same job and require exactly the same skills.

From authorship to final type form we keep repeating the same operations of typing, correcting, retyping, typesetting, correcting, retypesetting. At least 75% of the time now spent in transferring ideas to printing is devoted to correcting errors and retyping (on typewriters and typesetting machines) matter that has been perfectly typed several times before. Of course some of the error correcting is made necessary by this very retyping of already correctly typed copy.

Many of the errors are introduced into the process by typists and keyboard operators; others are introduced by machines (typewriters, tape perforators, typesetting machines) which have no capacity to detect errors, even those introduced by the machine itself.

Several electronic marvels have been suggested as a means of bringing the technology of typesetting up to a level enjoyed by the business world with its vast masses of data to process.

To Eliminate Drudgery

It has been proposed that the drudgery of typesetting could be removed by the use of character recognition technology now employed to read checks, envelope addresses, and hard copy printed from credit cards. It has also been suggested that character recognition technology could be applied to proofreading. Several makes of cathode ray tube display devices are being manufactured and sold to display and reproduce all sorts of data and text material at rates of 15,000 to 20,000 characters a second.

At least one of these is particularly suited (in basic design but not

in its present form) to producing high quality justified lines in any desired typeface. These machines are expensive but they work very fast. They would require one slight change in our copy preparation and typesetting habits. We would have to supply them with perfect copy—hard copy for the character recognition devices and tape for the cathode ray tube machines. None of these machines is smart enough to change an author's "affect" to "effect" or to delete the apostrophe from a possessive "it's."

Some human has to make these decisions and the time to make them is, of course, before the copy goes to the printer. This is true whether the printer sets type by hand, by keyboard, or with a character recognition device. It might be worth it to a printer to buy a million-dollar typesetting machine just to get copy delivered in perfect order. But if he could somehow get copy delivered in perfect order at the present time without the million-dollar machine he would find that much of the drudgery and waste of conventional typesetting would be gone.

Way to Produce Perfect Copy

There is a simple, comparatively inexpensive way of producing perfect copy. It does not require the design of any new equipment. The equipment needed is commercially available and similar equipment has been used ever since the invention of mechanical typesetting.

The business world began to cope with this problem many years ago. Within the past ten years it has made substantial progress. This progress is based on a simple principle. It is a rule easily accepted because it eliminates uninteresting work.

The rule is: "Never type anything but once!" Type it with an IBM Keypunch and let coded cards control repetitive listings. Type it on a carbon interleaved set and get several copies plus a duplicating master. Type it on a Flexowriter and get a perforated tape which will in turn punch cards or operate a machine tool *but type it manually and mentally only once!* The same rule can bring tremendous economies to the typesetting art.

What is required is the application of the tape punch and the tape reader to the whole system of copy preparation and typesetting. The author should type on a machine which produces not only a typewritten hard copy but also a punched tape. It is possible that he will correct some of his copy so thoroughly in longhand that the tape isn't any good, but much of what he produces will have only a few changes per page.

Then instead of a typist laboriously copying nine OK lines because the tenth needs correcting, the author's perforated tape is put in the reader of the typist's machine and the nine OK lines are automatically typed at twice the typist's speed and with no errors. The tenth line is also automatically typed except for the correction itself which is inserted through the keyboard.

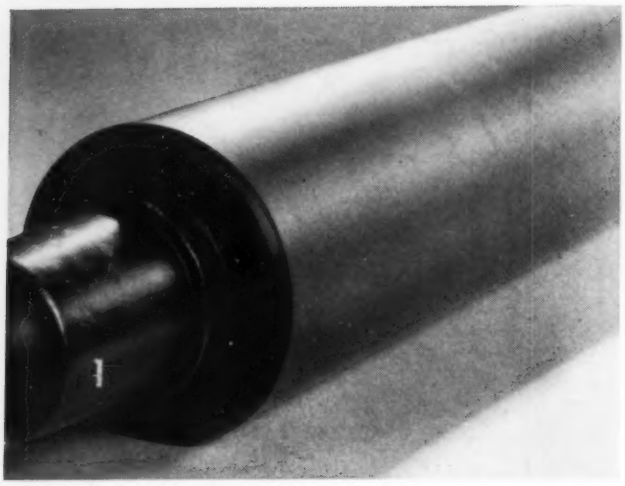
The product of this operation is corrected hard copy and a corrected tape which can be used for the next keyboarding. If nobody changes his mind the copy and tape can go to the printer. If someone else reads and changes, adds, deletes, and

(*Continued on Page* 108)

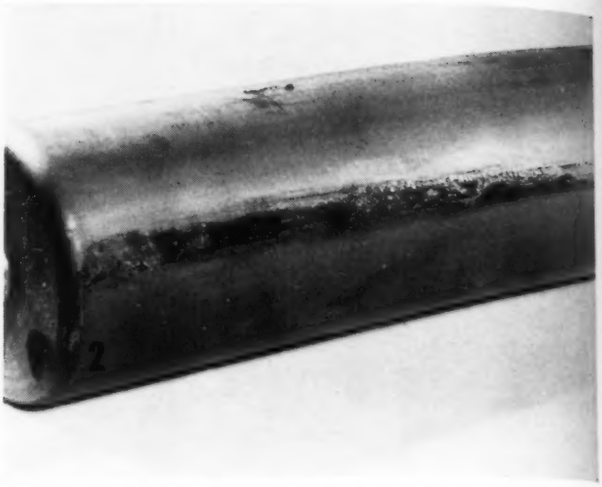
TYPESETTING FROM AUTHOR TO PRINTING SURFACE

A system of tape controlled copy preparation integrated into a system of tape controlled typesetting would eliminate much of the repetitive manual and mental operations listed below. Also abolished would be the 70 to 500-year methods which form the bulk of present typesetting technology.

STEPS IN CONVERSION OF IDEAS TO PRINTING PLATES	No. Years in use
1. Authorship	
a. Dictate to machine	40
b. Dictate to stenographer	120
c. Write longhand	500
d. Typewrite	60
2. Transcription on Typewriter	
a. From recording	40
b. From shorthand	120
c. From longhand	500
d. From author's rough typescript	60
3. Revision	
a. Typist erases and corrects own errors	60
b. Author and editor read and make longhand corrections	60
4. Retyping from corrected typescript (Revision and retyping repeated until copy is good enough for printer or publisher)	60
5. Hard copy with some longhand corrections delivered to printer or publisher	60
6. Copy prepared for typesetter	
a. Style changes marked	500
b. Measure, type face and size, marked	500
7. Keybord typesetting	
a. Operator follows copy if copy is perfect	70
b. Operator makes decision for each imperfection	70
c. Operator decides whether to break words and if so where	70
8. Type production	
a. From directly connected keyboard	In lead, 70; on paper, 15; on film, 10
b. From tape	In lead, 35; on paper, 10; on film, 5
9. Proofing	500
10. Proofreading	500
a. Checks only for operator and machine errors if copy is perfect.	
b. Checks operator decisions if copy is bad	
c. Queries author if intent is doubtful	
11. Type correction	70 or 500
a. Operator resets lines with errors	
b. Incorrect lines removed and correct lines inserted	
12. Proofing, proofreading, type correction repeated until galleys are OK	70 or 500
13. Makeup	500
14. Proofing, proofreading, type correction repeated until pages are OK	70 or 500



Is this a good roller or does its surface indicate a common trouble?



What causes this mark on a press roller? By what name is it known?

Take This Quick Roller Trouble Test. Answers on Opposite Page.

Can Your Men Recognize Roller Troubles on the Press?

(Photography by Thomas H. Hall, Chicago)

THE ability of a worker to recognize trouble (and of course, to know how to correct it) is an asset in any pressroom.

All sorts of things can happen to printing press rollers—the workers of the ink transfer operation. They can become glazed, pitted, scored, cracked, wrinkled, and even build up inks and varnishes. Each condition affects printing quality in a different way.

Quick recognition by a pressman of any one of these conditions will save time and may even be the necessary margin in keeping the customer satisfied. It will prevent hickeys, muddy color changes, grayed images, and other common printing troubles.

Test your pressmen for identification of some of the roller conditions shown on these pages. The pictures are taken from a booklet issued by Ideal Roller & Manufacturing Co. on *Cleaning and Care of Ideal Rollers.* The answers are given at the bottom of the opposite page.

Ideal's booklet also includes helpful information in regard to press rollers. The following is taken from the booklet:

The success of roller performance depends upon the efficiency with which they are maintained. Due to rising labor costs, it is no longer economical for firms in some locations to employ a special roller maintenance crew. As a result, they incur costs of frequent regrinding and subsequent recovering jobs to restore ground-down rollers to standard press specifications.

On the other hand, if labor costs are less than machine maintenance costs, a crew or an individual should be made responsible for keeping press rollers in clean, usable condition.

A sure sign of inferior roller care is the appearance of horizontal pick-outs on the rollers. The pick-outs are caused by allowing the residual ink or cleaning solvent to stick the rollers together overnight, over a weekend or during a long shutdown. When the press is started again, the rollers will pull apart and pick-out at the point of contact.

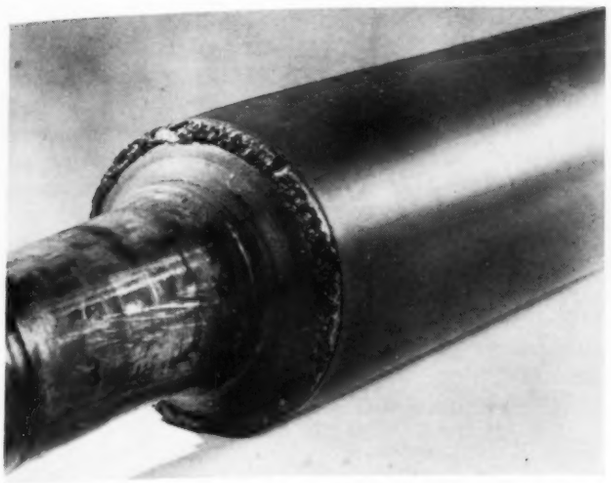
When short form printing is done without lubrication of the roller ends, serious end picking will result. If ink and varnish are allowed to build up on roller ends they become rock hard, and the operational result are hickeys and muddy color changes. A prolonged buildup of this kind on the roller will produce wrinkles and cracks on its surface. At this point, the plate is no longer being inked by the original roller surface but rather by the surface of the dried ink and varnish that has formed on the roller. The printed result is a grayed image.

Lubricating compounds are available for roller ends, or plain cooking fat can also be used to do this 10 min. job once or twice a week. Frequent end lubrication coupled with meticulous roll cleaning will contribute to the life of a roller and will save the printer the expense of frequent regrinding and recovering.

Machine or Hand Washups

Washup machines are efficient for day-to-day cleanups and for color changes. But they cannot be expected to keep rollers clean unless plenty of soap and solvent are used in their operation. However, nothing can replace periodic hand cleaning when roller mileage is a desirable factor. The roller should be rubbed with either fine steel wool or a rag using pumice powder mixed in a solution of naphtha or kerosene and alcohol. There are also a number of good roller cleaning solvents available.

If hand washing is considered too expensive and if the rollers have not yet begun to pick, a rebuffing job will remove the film and dried ink before the rubber itself is affected. However, if the rollers have begun to score or pick, or are out of round due to wear, a regrind job is in order. Regrinding usually takes 1/32



When the ends of the roller look like this, what condition caused it?

There are two reasons for this roller condition. Can you identify them?

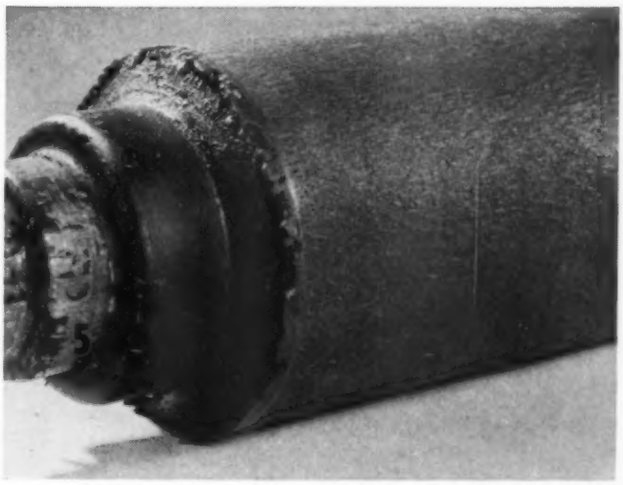
in. to 1/16 in. off the diameter of the roller.

A minimum of 1½ sets of form rollers per press are recommended, and 1¼ to 1½ sets of distributors. One extra ductor roller should also be kept on hand to replace that roller should it be damaged in an accident. The above ratios may be modified when there are two or more like presses requiring the same complement of rollers.

The following instructions are necessarily general as each pressman will develop and use the method which gives him the best results for his purpose.

The grinding of rubber rollers is in no way similar to grinding metal, where lubricants and coolants are used. Rubber rollers are always ground dry, since lubricants (such as water or sulphonated oils) tend to vary the diameter during the grinding operation.

A suction system should be applied around the grinding head to remove the grinding accumulation. This is not only for the benefit of the operator and cleanliness of the plant, but also because such a system prevents the wheel from packing with dust and gives a cleaner cut.



When a roller looks like this, what corrective steps must be taken?

Rollers can be ground either on centers or bearings which have been checked for concentricity before grinding. If grinding is to be done on centers, see that the centers are perfectly clean and free of accumulations.

The surface accumulation of ink on the roller, if not dried, should be removed by the application of some solvent—preferably naphtha.

If the rollers are tacky, soapstone may be applied at the initial grind to prevent accumulation of ink on the grinding wheel. If the grinding wheel becomes heavily loaded with accumulation, it should be dressed with a piece of cured natural rubber while in motion.

Because of the density and absence of porosity in the surface of vulcanized oil rollers, it is not necessary to use great pressure in washups. Saturate rags with a good cleaning fluid and rub lightly. This will accomplish the necessary results. Keep the whole printing surface clean, particularly the ends.

Cleaning Vulcanized Oil Rollers

Other helpful instructions in cleaning vulcanized oil rollers are:

(1.) Use plenty of kerosene, gasoline or benzine for cleaning dried ink from roller surface. Beware of strong solvents such as turpentine.

(2.) If rollers are washed for any length of time with ordinary cleaning fluids an ink film will collect. This will cause the roller to lose its tack and eventually corrode the roller material itself.

(3.) Take four tablespoonfuls of ordinary household lye to one pint of water and stir until the lye is thoroughly dissolved for a proper ink film cleaning solution.

(*Continued on Page 64*)

Answers to Roller Trouble Test

1. The surface of this roller is glazed and has score marks. Roller surfaces should look and feel velvety.

2. This is known as horizontal pick-out and is caused by allowing the residual ink or cleaning solvent to stick the rollers together overnight.

3. Ink build-up on the ends of rollers is responsible for hickeys and muddy color changes.

4. A good example of end picking caused by: (a) ink build-up, and (b) printing a short form without lubricating the ends of the roller.

5. A regrinding may correct this roller surface, but a recovering will be more likely required. (The accompanying article explains these and other roller conditions in more detail.)

Great Lakes Newspapers Bear Do

All mechanical departments share in program of Great Lakes Conference attended by 800; Gardiner becomes Conference's new president

By EDWARD H. OWEN, *Editor*
and MacD. SINCLAIR, *Consulting Editor*

MANAGEMENT and production men attending the Great Lakes Newspaper Mechanical Conference at Sheraton-Gibson Hotel in Cincinnati last month bore down on solutions to problems affecting production in their plants. In addition, reports regarding performance of new processes and equipment were heard. In this respect the conference was considered especially constructive by the 800 in attendance.

The 42 equipment and supplies exhibits drew great interest from the newspapermen throughout the three conference days.

The 1962 conference will be held at Claypool Hotel, Indianapolis, on Jan. 14, 15 and 16.

Communication is a Management Weakness

"One of the greatest weaknesses in newspaper production is management's failure in communications with employees," asserted Shiel Dunsker, assistant business manager, Cincinnati *Post* and *Times-Star*. "Management fails to get across its messages," he said, "by not using an extra five minutes necessary to make the essential explanation."

In addressing the foremen specifically, Dunsker advised that a foreman must never condone details of a union contract. Also, the foreman must keep his men well informed regarding company wishes rather than to let irresponsible rumors circulate among the force.

He discussed qualities of a good foreman. If a foreman must decide for or against the company in a disputed area and it appears that his decision should be against the company, then he should have guts enough to so decide if necessary. He said that in order to be a good union man it seems the average worker in many plants hates the company which employs him and questions every management action.

With improved communications by management, the foreman can function importantly when working with the human element as management's representative. His job, said Dunsker, is a challenging one.

Methods for producing newspaper display ads by photocomposition are in a state of flux. This was the inescapable conclusion of anyone listening to speakers during the session devoted to cold composition at the Great Lakes Conference.

There was one general point of agreement among the users of photocomposition—it costs less. Neither did anyone dispute the statement that usually when a difficult

display ad is to be produced photocomposition gets the call. What would be considered gymnastics in hot metal composition seemed to be not at all difficult of accomplishment by the cold type method of display composition.

A member of the audience asked the speakers: "You have told us about the production efficiency and economy in setting ads in the composing room. Now, what about the cost of making the engravings?" The reply was: "You can produce an awful lot of engravings with the money you save in the composing room."

Program for Small Dailies

Subjects of interest to production men of the small daily newspaper field were brought before the Great Lakes Conference at a separate session. One was a description of a dispatch system (see page 43, this issue) as used at the Newark (O.) *Advocate*.

Five years continuous use of packless stereotype mats was reported by R. Bernard Schlegelmilch, stereo foreman, Ann Arbor (Mich.) *News*. His report was read by Bill Tookey.

Schlegelmilch emphasized the changes that were necessary in the plant before the packless mats were successful. "A lot of tightening up had to take place all through the plant," he said. "It took patience and lots of sweat; also some arguments."

He said the *News* can now handle twice as many pages after lunch and still go to press on time. "We don't have to worry about different rates of shrinkage for the mats and the packing. We also don't have to worry about a piece of packing working loose and lousing up the plate," Schlegelmilch added.

The stereo foreman continued: "One of the best features of packless mats . . . is that they enabled us to eliminate a bottleneck on the ad side of the composing room. A noon ad copy deadline meant that we usually got a flood of flat work about the same time all the stereotype workers were busy casting plates. Naturally the flat casts had to wait until we went to press. By the time we were able to swing over and make much of an impression on the pile of work, the printers were ready to quit for the day."

He reported that the men who formerly did the handpacking have been shifted to job work. His closing endorsement was: "We couldn't get the paper out on time now without packless mats."

In a talk on the pressroom color operation at the Muskegon (Mich.) *Chronicle*, Jack Kinney, press superintendent, mentioned use in his plant of a paper core stripper made of ¼ in. fiber board. He said it enables taking the wrappers off the rolls, stripping waste from them, and stripping paper from the cores. He said the tool is also used to remove paper from printing rollers and blanket cylinders after wraps.

Other time and work saving ideas disclosed by Kinney included the use of a 6 in. scale as "a handy tool." He said it can be used as a screwdriver, pry tool, and with one edge sharpened on one side, as a cutter to square a web above the printing level. He observed that this is often done when changing from color lead to black and reverse, using gum tape to join the two.

Kinney also told how the pressmen cut all webs behind the folder and let them hang preparatory to cleaning up for color. He said it saves paper.

Photocomposition has reduced page cost for ad composition at the Port Huron (Mich.) *Times-Herald*, said its composing room superintendent, William Alexander. The paper produces 55% to 60% of all ad composition on two Fotosetters.

Alexander observed that a good pasteup man can produce from 400 in. to 500 in. per day. He said one pasteup man can produce the equivalent of four men's output by the hot metal method.

Still a production bottleneck in photoset composition, said Alexander, is the proofing operation. These proofs are now produced at a cost ranging from 3 to 5 cents per proof. One of the time saving items in use

OFFICERS OF THE GREAT LAKES MECHANICAL CONFERENCE

President — Theodore Gardiner, Chief Composing Machinist, Indianapolis *Star-News*.

First Vice President — Mike Bildner, Pressroom Supt., Kalamazoo *Gazette*.

Second Vice President—Richard Westfahl, Stereotype Supt., Milwaukee *Journal*.

Third Vice President — Lawrence Brune, Press-Stereo Supt., Hamilton *Journal-News*.

Fourth Vice President—Golden L. Faris, Production Mgr., Indianapolis *Star-News*.

Secretary-Treasurer—John E. Innis, General Stereo Foreman, Indianapolis *Star-News*.

An accident with the film shot at the Great Lakes Newspaper Mechanical Conference prevents bringing to our readers a pictorial report of those in attendance at the conference.

wn on Daily Production Operations

at the *Times-Herald* is a permanent pica ruled grid in the light table. This is used for pasteup purposes instead of the faint light blue ruled paper.

The One-Proof Ad System

One of the interesting topics discussed at the composing room session was *The One-Proof System*. The speaker was Stanley Ferger, advertising director, Cincinnati *Enquirer*.

In instituting its one set of proofs system to display advertisers, Ferger said some difficulties were experienced. Advertisers receive one set of up to 30 proofs of an advertisement. Since adoption of the one-proof system, the composing room makes fewer mistakes in composition. He also said that revisions on the first proof had reduced advertiser tearup by 75%. When mistakes from the advertiser's copy are not made in composition, Ferger feels a psychological factor enters into the situation by restraining the advertiser from tearing up proofs.

Thousands of dollars have been saved in excess revisions of store proofs, both by the *Enquirer* and the advertisers. Also, the sales staff has more time to devote to its activities as the result of being freed from advertiser involvement.

Occasionally, an advertiser sends corrections back on several proofs of the same ad. Such practice is discouraged.

Using slides to illustrate his address on composing room lighting, Frank McLean showed how the Cincinnati *Enquirer* composing room had been modernized. McLean is district manager of the Holophane Company.

Using an office type of fixture, the lighting volume was determined according to need at a particular job in the composing room. There is no set position for the lighting fixtures. In general, in the *Enquirer* installation, there is a minimum of 100 foot-candles with a 20% differential between the makeup and line composing machine areas.

When asked about advisability of dropping fixtures. McLean said it is not necessary. For instance, in the *Enquirer* engraving department, a ceiling mounted wrap-around prismatic fixture is used.

Paint and color on ceilings and walls are extremely important for

(*Continued on Page* 68)

Process Color with Low Shrink Mats; Other Packless Mat Process Techniques

Reports about technical improvements in processing packless mats dominated the stereotype session of the Great Lakes Mechanical conference last month in Cincinnati.

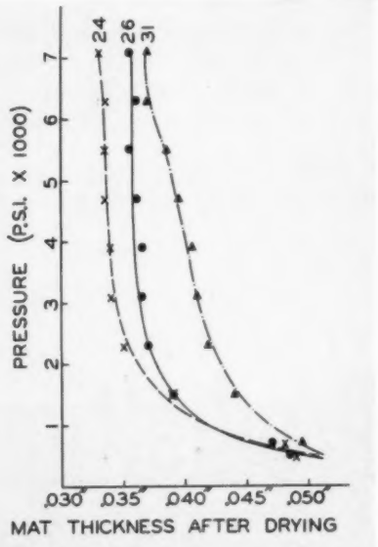
Richard Westfahl, stereotype superintendent, Milwaukee *Journal*, explained how low-shrink packless mats for three and four color process work are cold-molded by direct pressure.

All ROP color, including full page color work and the comic section, are cold-molded. Presently, the *Journal* is experimenting with this process on the *TV Guide and Entertainment* section. If this is accomplished color work will be molded 100% by this process.

Westfahl stated that three full color jobs can now be molded in the same time formerly required to hot-mold one complete job.

How the Process Works

The direct pressure packless cold-molded mat process according to Westfahl, is a simple one. After placing the mat on the form, a sheet of butcher paper is added. A 0.125 in. Bakelite board completes the molding combination. On the direct pressure molding machine, 625 T. pressure is applied for 15 sec. without heat, stated the speaker.



Maximum molding pressure for packless stereotype mats is shown by this chart prepared by Frank Stanczak of ANPA Research Institute.

After molding, the mat is placed in the flat former for 5 min. with 6 in. vacuum at approximately 300 deg. F. in the lower and upper chambers. "We have found that by using the flat former with 6 in. vacuum we can hold mat shrinkage to approximately $\frac{3}{16}$ in. to $\frac{1}{4}$ in. width and $\frac{1}{8}$ in. length," he said.

"We must use the flat former because we register all of our mats on a Mat Matcher, and must dry them flat. After forming, the mat is placed in a Thermofile cabinet until the entire set is completed. Cabinet temperature is 150 deg. F. We do not expose the mats to the air so as to insure against gathering moisture before being cast.

"Having completed the molding operation, the set of mats is removed from the storage cabinet and registered on the Mat Matcher.

"During the molding operation, we choose the mat with the most suitable color to register all of the other mats in the set. We mold an extra mat of this key mat. This mat is not for casting but is used only as a key mat and is positioned in the Master Matcher. This key mat is important for another reason: If we damage a mat in the casting operation we can remold it and re-register it to the key mat.

"After being registered, a small hole is punched in the corner of each mat. Scribe marks are made as near the printing surface as possible. The scribe marks provide a means for measurement after the plate has been cast. The holes punched in the mat permit punching a slot in each of three of its sides. The slots permit positioning the mat in the Master Trimmer. While the mat is held by vacuum, two sides and the ring edge of the mat are cut simultaneously. The two sides are now stripped with gummed tape to prevent creep-up while the plate is being cast.

"Next, the mats are placed in the curved roaster and are then returned to the Thermofile cabinet.

Speaking on the provocative subject, *Does Stereotyping Have a Future?*, Vernon R. Spitaleri, Sta-Hi

Corp., mentioned a number of recent process changes in newspaper production.

Speaking pointedly to the men in the audience who are in charge of stereotype departments, he said that as the result of research and development work, new stereotyping processes and printing equipment have brought about major processing changes. He asserted: "It is no longer fashionable to resist change."

Multiple Stereo Base Saw

At the Chicago *Sun-Times* and *Daily News* plant, said Abner Kirby, stereotype superintendent, stereo high and low base is now being produced in quantity through development of a multiple or gang saw.

The cast base sections are placed on the saw bed and are automatically locked, cut and unlocked. The carbide tipped saws may be adjusted for three, two and single column widths.

Processing Packless Mats

Frank J. Stanczak of ANPA Laboratories, Easton, Pa., presented *A Report on the Difference in Performance of High and Low Moisture Contents of the Packless Mat.* His address, delivered previously at the New England Mechanical conference, Oct. 1960, was published on page 43, Jan. 1961 issue of PRINTING PRODUCTION. However, in order to illustrate more clearly Stanczak's report regarding maximum molding pressure for packless mats, the accompanying chart is being reproduced with explanatory comment. He said:

"Many believe that more pressure is required to mold packless mats than is required for molding standard mats. This is not true. In the accompanying chart are shown compression curves for packless mats containing various amounts of moisture content.

"Due to the fact that little or no cushion is used with packless mats, I would say it is easier to overmold these mats. Two points of impression change with little or no cushion might mean 1000 or 2000 lbs. per sq. in. pressure change; whereas 2 pts. of impression with a ¼ in. cork cushion may mean only 100-200 lbs. per sq. in. pressure change.

"That is why it is so important to set the mat roller purposely to a light pressure and gradually add pressure while measuring mat compression. The stereotyper should follow this procedure of adding small amounts of pressure until a point is reached above which no appreciable mat compression is obtained."

Stanczak continued: "Note the 24% mat curve in the chart. At 3000 lbs. per sq. in., the mat is calendered to 0.034 in.; at 7000 lbs. per sq. in., it is calendered to 0.033 in.—a difference of only 0.001 in. Therefore, it is questionable as to what would be gained by molding to 0.033 in. thickness at 7000 lbs. pressure as against 0.034 in. at 3000 lbs. pressure in mat compression. Following this procedure of setting mat roller impression on the light side and working up in pressure should, therefore, insure the stereotyper that he is using a maximum amount of pressure to get optimum results.

"Moisture content has a definite effect on mat molding qualities. The three curves in the chart depict compression curves for 24%, 26% and 31% moisture content mats. Note that as moisture content increases, the mats resist compression. A plant using mats with 31% moisture content mats should not expect to compress this mat as much as plants using 24% and 26% mats.

"These curves also show the effect on stereotype plate levels. The 31% mat curve has a variation of 0.004 in. to 0.005 in. between these same pressures. . . . This means that if there are some variations in form height, the 31% mat is more apt to retain these variations than the 24% or 26% mats." ⊕

Announce Northwest Conference Plans

Final plans have been announced for the Northwest Mechanical Conf. to be held at the Hotel Saint Paul, St. Paul, Mar. 4-6. Major conference addresses are to be delivered by B. H. Ridder, Jr., publisher of the St. Paul *Dispatch-Pioneer Press;* Charles Hentschell, vice president and general manager of the St. Louis *Post-Dispatch,* and Charles Tingley, director of the ANPA Research Institute.

Scheduled for the morning of Mar. 5 is the Linecasting Machinists Clinic. Leaders of the discussion for the clinic are to be participants in the Northwest Composing Room Machinists Assn. meeting, which will be held in St. Paul on Mar. 4.

Another feature of the meeting will be the Capsule Conference during which manufacturers will outline the latest developments in equipment and materials.

Other activities will include a Photoengravers Clinic, a description of a Linofilm operation, a discussion of production methods, a buffet on the evening of Mar. 4 and a banquet on the evening of Mar. 5.

Planning committee members for the Northwest Mechanical Conference are, left to right, seated: Tom Lanford, composing room superintendent, St. Paul *Dispatch-Pioneer Press;* John Breen, mechanical superintendent, Duluth (Minn.) *Herald and News-Tribune;* Gil Dunn, St. Paul *Dispatch-Pioneer Press,* conference president; J. E. McCambridge, production director, Minneapolis *Star and Tribune.* Standing: Ralph Carson, secretary-treasurer; Eugene McGuckin, general manager, and Al Braine, chief machinist, both of the Duluth *Herald and News-Tribune.*

In Hartford, Conn., Irving R. Canfield, Printing Week general chairman, holds winning entry in letterhead contest, which was produced by Elmer Young (right), a senior at Hartford's Bulkeley High.

Eleven Omaha, Neb., high school students received achievement awards at the annual Printing Week banquet sponsored by the Omaha Club of Printing House Craftsmen.

Left—Joseph Cangalosi, president of Printing Industry of Washington, D. C., is shown congratulating Printing Week chairman H. Wayne Warner. Ann Boettcher, Miss Printing Week, looks on. Center—At the East Bay Printing Week banquet, Edwin Mason and Ben Wray display Craftsman of the Year plaques which they were awarded. They pose with their employers, left to right, Lynn Aldrich and Al Grathwohl, Hazeltine Typesetting Co., and Cliff Clark, Pacific Typographic Service. Right—Ready to spread the word that printing tells it best are Caroline di Fruscia and Shirley De Lancey. The two were chosen queen and princess of Los Angeles County Printing Week.

Left—Bud Guest (third from left), son of poet, Edgar A. Guest, was the focal point of the evening at the Printing Week celebration of the Akron Club of Printing House Craftsmen. He spoke of humorous incidents of every day life. Others at speakers table are members and wives of the club. Center—At the New York Printing Week dinner, Allen W. Dulles, director of the Central Intelligence Agency, receives Franklin Award of the New York Employing Printers Assn. from Donald B. Thrush, NYEPA chairman. Right—In Richmond, Va., guests at the Printing Week dinner were entertained by Bill Carlson, advertising director, Berry-Burk Co., who impersonated Mark Twain.

By DEANNA MIHALICK
Staff Writer

Nation's Talented Youth Capture Printing Week Spotlight

Cleveland's Future Printer of 1961, John Robert Young (left), is greeted by past winners of the award at Printing Week banquet. Young won a one year scholarship to Rochester Institute of Technology. Also pictured, left to right, are Robert Beech, 1956 winner; Richard Smith, 1955 winner, and Robert Klimas, 1953 winner.

PRINTERS throughout the United States placed more accent on youth during the celebration of 1961 Printing Week, Jan. 15-21. Scholarships for Graphic Arts study, career day programs, and contests designed to uncover Graphic Arts aptitude were emphasized portions of many local programs.

In addition to recognizing talented young people and encouraging Graphic Arts careers, printers paid tribute to Graphic Arts leaders, displayed machinery and their products to the public, crowned queens and listened to many distinguished speakers.

All areas of the Graphic Arts were represented in the week long observance. Activities were coordinated by the International Assn. of Printing House Craftsmen under the chairmanship of William H. Evans, Charlotte, N. C.

At presstime, the following cities had reported Printing Week activities:

Chicago was the host city for the Annual Awards Banquet of the Education Council of the Graphic Arts Industry. At the banquet, the Outstanding Service Award of the Council was presented to George S. Dively, president and board chairman of Harris-Intertype Corp. Dively, who serves as vice president of the Council and on the board of the National Scholarship Trust Fund, was presented the award for his "vision and leadership in translating into action numerous projects dealing with educational progress of the printing and the publishing industry."

In New York City the Franklin Award of the New York Employing Printers Assn. was presented to Allen W. Dulles, director of the U. S. Central Intelligence Agency. Donald B. Thrush, NYEPA board chairman, made the presentation during the Printing Week dinner, which featured Bennett Cerf, well-known humorist and publisher, as speaker.

"New Directions in the Graphic Arts" was the theme of the 19th Exhibition of Printing of the NYEPA in the Hotel Commodore. New directions to better printing, in Graphic Arts design and in printing production uses were the themes of the workshops sponsored during the week.

New England Looks to Youth

A series of programs designed to interest students in Graphic Arts careers was conducted in the New England area. The annual fund raising banquet for the New England Graphic Arts Scholarship Fund was held. Also, some 20 firms and 40 students participated in a Career Day during which students toured plants and received career counseling.

Other activities in New England included a large printing equipment show at the First Corps of Cadets Armory in Boston, a Book Fair sponsored by the Boston Bookbuilders and a poster contest.

The Graphic Arts Council of Cleveland awarded its eighth scholarship to Rochester Institute of Technology during Printing Week. The recipient was John R. Young, who will graduate in June from Collinwood High School in Cleveland. Fifteen other high school students were honored by the Council, along with seven students who received Litho Club awards.

Other activities in Cleveland included a Teachers Appreciation

(*Continued on Page* 58)

Petroleum science helps today's printer preserve his machinery with specialized

PRESS LUBRICANT

By H. A. STAUFFER, *Anchor Chemical Co., Inc.*

PRINTERS have long recognized the need for regular lubrication of their machinery. What most printers have not recognized, however, is the need for the right kind of lubricant.

It was not until the advent of the automobile that the need for highly specialized lubricants became paramount. Scientists then began to delve into the structure of the petroleum molecule to adapt it to specific jobs.

An early car used a 600 weight lubricant for its gears and a 30 weight oil in its crankcase and got along pretty well. However, the temperatures and pressures of present automobiles demand special lubricants to keep them operating at their rated efficiency.

Graphic Arts equipment was for many years a poor stepchild of the motor industry. It depended upon hand-me-down lubricants which it adapted, as well as possible, to its needs. Many operators of Graphic Arts equipment are still not aware that specialized lubricants have been developed to meet their particular needs.

Graphic Arts Lubrication Research

It was not until the introduction of foreign made equipment that the need for specialized lubrication became acute. The manufacturers of this equipment recommended lubricants not easily obtainable. These manufacturers realizing the problem, approached American lubricant producers for a solution.

For the first time, attention was focused upon Graphic Arts equipment and a study made of its peculiar needs. It was learned that Graphic Arts equipment had needs which were not completely satisfied by lubricants manufactured for autos, roller skates or scooters. Work, therefore, began on the development of lubricants to meet the specifications of the foreign made machinery.

Presses, for instance, do not operate at the high temperatures of an auto engine and those additives required for high temperature stability are not necessary. However, a car dripping oil on the road causes little concern; while oil dripping from a press creates a fire and safety hazard.

One by one these problems were overcome. Now a pressman has a selection of lubricants that have been specifically developed for the needs of his equipment.

Lubrication Instruction Material

Some manufacturers went one step further and prepared instruction booklets and charts which interpreted the lubrication needs of each moving part of most Graphic Arts equipment. Anchor Chemical Co. has assembled a chart which suggests lubricants to be used on the popular types of presses. The chart shows what lubrication should be used when hand oiling, for the central lubrication system, the vacuum pump, grease fittings, open gears and chain drives, and main drive gear housing.

The best lubricants do not help if not properly used. A piece of production equipment must be systematically lubricated if it is expected to perform its function well and without interruption. A protective film of lubricant must be present everywhere one moving surface touches another.

The heavy cylinders of large reciprocating and rotary presses require tough lubricants that will not break down under the pounding they receive. Delicate controls and pumps need non-corrosive lubricants to keep their mechanism operating perfectly. Rust prevention, non-sludge formation, and stable viscosities are among the other properties of paramount importance to other press functions.

When the cost of equipment and breakdown delay is considered, perhaps the lowest investment in maintenance of uninterrupted quality production and the life of costly equipment is the small expenditure for proper lubricants.

The molecular structure of a lubricant is like a group of bearing balls. The film of lubricant on each moving surface can be imagined as a layer of these balls magnetically adhering and rolling much as a group of marbles beneath a board. This film must be maintained at a strength great enough to withstand the pressure to which it is subjected if surface damage is to be prevented. Proper lubrication procedure means putting the correct lubricant at the right place and keeping it there until its job is done.

A booklet accompanies each piece of power-operated equipment describing the proper methods, lubricants, and lubricating points where lubrication is necessary. There is not, however, a service station where a trained mechanic will lubricate presses. You must study

your service manual and educate, train, and supervise those who are in charge of equipment maintenance if you expect long life and full production from your equipment.

A regular schedule of equipment lubrication should be established on a point by point basis. This procedure will eliminate the hazards of maintenance which is done on a hit or miss basis.

Central lubrication reservoirs should be checked for proper oil level. This is not the only check. Equipment should use some oil. Almost no change in level since the last check can indicate clogged distribution lines and starved bearings. Excessive use can indicate broken lines or loose connections with the same result. Be certain that personnel in charge of maintenance are aware of all danger signals.

Lubrication is a Careful Process

When Alemite or Zerk fittings are used be sure that they are wiped clean before grease is forced into them so that abrasive contaminants are not forced into the bearing. Fresh lubricant should be forced entirely through the bearing. Any previously contaminated lube is therefore removed, and lubricant can flow freely without any frozen areas.

Gear teeth should be coated with a lubricant having a high film strength. This will assure against breakdown under applied pressure and will provide enough cling not to be thrown clear by motion, leaving an almost dry surface.

There are many places without oil holes or grease fittings. Such places, however, have surfaces which move against each other and do require lubrication. A few examples are spring-rods, spacers, collars, etc.

It has been emphasized how important it is to secure the exact lubricant for every moving part of your car to protect it from undue wear and costly breakdown. This is equally true of Graphic Arts equipment. Be sure to use a lubricant that is specifically engineered for the function it is to fulfill, and then follow a sensible lubrication procedure. Smooth, efficient operation of equipment will be the resultant benefit. ⊙

Developments in Zinc Litho Plates

New developments in zinc lithographic platemaking have been reported by John L. Kimberley, executive vice president of American Zinc Institute.

Developers claim zinc lithographic printing plates incorporating the new processes produce fine quality printing, extend the length of run and reduce costs.

The process consists of a new graining technique which is said to produce a fine grain on zinc litho plates and application of anti-corrosive protective film which reportedly extends the service life of the basic plate. A new wipe-on diazo coating that is described as easy to apply is also an innovation of the process. A third development of the process is a one-step ink developer that reportedly develops and inks the image after photographic exposure of the plate through a negative. This final development is said to eliminate one platemaking step and speed production.

Director of the expanded research program of the American Zinc Institute, the program that produced this new process, is Dr. Schrade F. Radtke.

Preparation of Art for Newspapers

A report dealing with the preparation of artwork, engravings and duplicate printing materials for black and white newspaper reproduction has been prepared by a joint committee of the American Newspaper Publishers Assn. and the American Assn. of Advertising Agencies. Copies of the report are available to all advertising agencies and daily newspapers.

Discussed in Report No. 10 are various pitfalls in the preparation of artwork, engravings and duplicate printing materials which lead to poor reproduction on news stock. Among the specific problems studied are photographing black and white masses with proper detail, photographing foods, preparing wash drawings and choosing legible typefaces.

Also discussed are reverse cuts, engraving requisites, and halftone dots. Tables of *do's* and *don'ts* are included for each area discussed. All procedures described in the report are illustrated.

A limited number of copies is available from the ANPA Research Institute, 750 Third Ave., New York 17.

Printing Officials List Foreign Trade Obstacles

Obstacles to the expansion of the foreign trade market of the U. S. printing industry have been outlined for the U. S. Department of Commerce. Pleading the case of the printing and publishing industries were representatives of firms whose export business exceeds $125 million annually.

Listed among the obstacles were: Exchange problems, tariffs, licensing and quota restrictions and special taxes.

Industry spokesmen recommended that a more favorable international postal rate structure be adopted. Publication representatives claimed that an increase in foreign circulation of American technical magazines would increase sales of U. S. products abroad and also speed adoption of U. S. know-how in technical and marketing fields.

Camera Firms Acquired by 3M

Wollensak Optical Co. and its parent firm, Revere Camera Co., have been purchased by Minnesota Mining & Manufacturing Co. The announcement was made by Herbert P. Buetow, president of 3M, and Sam Briskin, chairman of Revere.

Wollensak, located in Rochester, N. Y., is a manufacturer of photographic lenses and industrial cameras. According to Buetow, management of the acquired firms will continue without basic change.

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COX-O-TYPE
Rugged, economical, flatbed; now with color units; for weeklies, small dailies.
SUBURBAN
and
URBANITE
UNIVERSAL and TUBULAR
Most economical presses for medium-size city papers; speeds up to 40,000 p.p.h.
HEADLINER MARK I
More popular than ever, now with many improvements; prints up to 60,000 p.p.h.
GOSS

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YOUR NEEDS? A team of Goss engineers will work closely with you and study your production—from raw stock to finished newspaper. With their broad experience, they can give you valuable advice on plant planning, production problems and materials handling, as well as recommending the right press.

PICKING THE PRESS. You'll choose from the *only complete* line of newspaper presses available—including the renowned, newly improved Headliner® MARK I; the sensational new Headliner MARK II; the all-new web-fed offset presses, the Suburban and the URBANITE; plus all the other standout Goss presses.

CUSTOM-FITTING IT. Your press will be constructed to *your* specifications—incorporating the exact features that you need, even making basic modifications if necessary.

THE RESULT: A press specially designed for *your* operation . . . a Goss-built press that will give you top operating ease and efficiency with maximum net production.

3 out of 4 American daily newspapers are printed on Goss presses

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CHICAGO 50, ILLINOIS

Specialists in newspaper, magazine and roto presses

A DIVISION OF MIEHLE-GOSS-DEXTER, INC.
The leader in graphic arts . . . engineering, service and manufacturing . . . industry-wide and world-wide

Printing Week Celebrations

(Continued from Page 53)

banquet and the crowning of a Prints Charming by the Women's Advertising Club. Speaker at the Cleveland Printing Week banquet was Quentin Reynolds.

Printing and commercial art students were luncheon guests of Akron printers. James Bedell, retired printing manager for B. F. Goodrich Co., was honored for his contributions to the Graphic Arts at the Akron Printing Week banquet.

Cincinnati was among the other Ohio cities which recognized printing students with awards and industry tours.

U. S. Public Printer Speaks

The Honorable Raymond Blattenberger, U. S. Public Printer, was the guest speaker at the Printing Week banquet in Richmond, Va. A movie entitled *Printing—A Future Unlimited* was shown to some 800 high school students in Richmond.

Printing and the role it plays in freedom was the theme of celebrations in Nashville, Tenn. An essay contest with a $100 prize was sponsored by Nashville printers.

An exhibition of machinery and printed samples was sponsored by VanderKloot Press, Inc., and Detroit Colortype Co. in Detroit after cancellation of the Detroit Printing Week Exposition.

In commemoration of the birth of America's patron saint of printing, leaders of Chicago's Graphic Arts industry observe International Printing Week by placing the traditional wreath of the Chicago Club of Printing House Craftsmen at the Lincoln Park statue of Benjamin Franklin.

In left picture, St. Louis Mayor Tucker (right) presents Bud Vogt and John Wyrsch with the Printing Week proclamation. Right picture shows Cincinnati Mayor Walton Bachrach signing the Printing Week proclamation for his city while Robert C. Wolf, Jr. (left) and Luther Engle, co-chairmen of Printing Week, look on.

Type and Dycril

(Continued from Page 42)

cipal one is being able to strip in position on the film, as in offset.

(9) The company is able to offer its customers color plates at a cost competitive with offset printing in four colors. The saving in this phase over the standard engraving method is about 60%.

(10) In both the production of advertising and in printing, Michigan Typesetting customers are now reporting savings up to 50-55% in time and money.

The Dycril Department

Special equipment installed for the production of flat Dycril plates includes: Arc light and exposure frames, washout unit, stripping tables, conditioning tables, camera (not necessary if camera work is to be performed outside the plant), saw and beveler. This equipment is installed in duplicate at Michigan Typesetting, not only doubling normal capacity, but assuring protection in case of a breakdown.

The same basic types of equipment are used for the recently introduced curved plates, such as the addition of a rotary exposure frame, rotary washout unit and a rotary bender. Some of the same equipment can serve both departments.

About 25 people are now employed in the department, which operates on three shifts around the clock. Six basic skills are required in the department: Camera operation, stripping, exposure of plates, washout, sawing and blocking. One problem encountered has been getting production people fast enough to keep up with the growth in sales. The problem here is to train people quickly to work efficiently.

Wide variance in size of plates makes any summary of production figures a bit misleading. Present production is about 35 plates of all sizes a day. A number of small plates actually may be processed upon a single flat plate, and subsequently cut. The maximum size being produced in flat plates is a 17 in. by 23 in. printing area upon an 18 in. by 24 in. plate. Flat plates are produced on Type 15 (11 pt.) Dycril only.

Actual production of curved plates was started in November 1960. The plates are being made in three thicknesses: 0.152 in., 0.180 in. and 0.240 in.

Little difficulty has been encountered in actual production of curved Dycril plates. Partly this is a result of starting off with good training and the know-how in working with flat plates. However, it is recognized in this plant that it is necessary to be careful in handling the curved plates.

Beginning with early experience at Michigan Typesetting, it was

found that most curved plates were produced for color printing. In addition to securing accurate register, care must also be taken to see that the plates are sawed square with the specified margins. It is not a problem, really, but is a matter of establishing more rigid production control.

In making curved plates the rotary exposure is used. This unit is adaptable to different press roll diameters. The plate is mounted in the unit after it has been curved to specification. This is in marked contrast to the usual exposure of flat plates which are to be curved after processing. In this way, any chance of distortion is eliminated as well as permitting accurate holding of register.

Who's Ordering Dycril Plates

Most orders for Dycril plate work at Michigan Typesetting Co. are coming from advertising agencies, rather than printers. Among the latter, label printers, carton manufacturers, and form printers are the principal customers. Curved plate orders are also coming from the printer.

Magazine printers are using the Dycril plates produced for them, but are not an important source of orders. Probably this is a reflection of the absence of any major letterpress magazine printers in the Detroit area.

The plates are finding acceptance in production runs by printers and agencies for magazine and newspaper advertising. An unusual use by one special customer is as a guide for automated stencil making machines.

Michigan Typesetting has not yet introduced wrap-around plates, since the material from which to make the plates is not yet available in production quantities.

Looking to the future, Michigan Typesetting is preparing a new plant area of about 14,000 sq. ft. to expand this department as compared to about 2000 sq. ft. floor space now used for this purpose. Michigan Typesetting's future plans are summed up by Robert Levison as follows: "We visualize a large and important operation in Dycril. We expect this to grow to five times the present number of personnel and investment in equipment in the next few years." ⊙

You'll Be Seeing Doubles If Your Grippers Aren't Gripping

IF SHEETS sometimes stick to the blanket, or doubling on multicolor press equipment is a plague, the trouble may result from faulty grippers. This advice was mentioned in a recent New York Employing Printers Assn. Lithographic bulletin to members.

A common error, however, is to mistake slur for doubling. When viewed through a 50X microscope, a slur is a smear that tapers from the solid into the white. A double is a clearly defined but gray dot that extends into the white area. It will look similar to a shadow of the printed dot.

Doubling may be caused by the sheet slipping slightly in the grippers as it is stripped from the blanket of the first unit. The size and position of the shadow dot will vary in relation to the amount of sheet slippage.

The blanket on the second unit picks up ink from the wet sheet where it was printed on the first unit. This makes no difference as long as the sheet contacts the second blanket in the same place each time. If, however, there is slippage in the grippers, the second blanket will print the first color back on the sheet and the result is a double.

Grippers Must Have Firm Hold

A sheet sticks to the blanket because of weak, sluggish, out of time or poorly set grippers. The transfer of the sheet from impression cylinder to transfer cylinder or delivery grippers takes place as the sheet is being peeled from the blanket while it is under its greatest tension. At this point, the receiving grippers must take a firm hold on the sheet before the first set releases.

Because this operation takes place at high speed, slow or weak grippers will lose control of the sheet. Slippage occurs and the result is doubling. If the sheet should become entirely free of the grippers it is likely that the blanket will carry it up into the press.

Grippers should be periodically cleaned so that they will work freely on the bars. Bars should also be cleaned in order to work freely on the bearings. Cam followers should be inspected for lubrication and free movement.

If gripper trouble occurs, it might be due to the finger springs on the grippers. After a few years, these springs tend to lose some of their original strength. Bent fingers should be straightened and gripper pads may require some roughing. This may be done by placing a fine sharp file between finger and pad, and striking the pad sharply. ⊙

Westprint '61 to Feature Large Equipment Exhibit

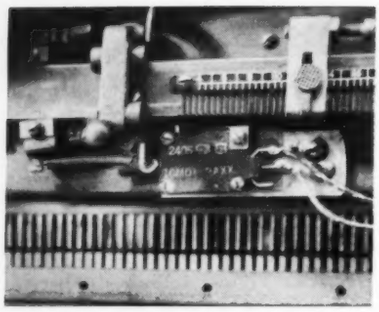
More than 150 individual exhibitors have reserved space to date for Westprint '61, the Western exposition for Graphic Arts equipment, supplies and services. Westprint is to be held in the Shrine Exposition Hall, Los Angeles, Mar. 23-26.

Herbert L. Mitchell, president of Westprint '61, has announced that the following will be among the show exhibits: Five different makes of sheetfed offset presses, including the first showing in the U. S. of a new 38 in. press; equipment for making the new Du Pont Dycril relief plates; the first showing in the U. S. of at least one and possibly two foreign developed photographic composing machines.

Also scheduled for exhibition are: Three lines of major letterpress printing presses; the Vario-Klischograph machine; several makes of cameras; automated binding machinery; and two or three makes of webfed offset presses.

184 Apply for Pitman Awards

Harold M. Pitman Co. has announced that 184 applications have been received for the six 1961 scholarships offered by the company. The 106 boys and 78 girls are sons and daughters of employees of photoengravers, lithographers and gravure cylinder makers in 27 states. Winners will be chosen by the Educational Testing Service.



Picture shows position of switch (H-6742) mounted on assembler slide mounting plate.

TTS Operators Can't Sneak Loose-Tight Lines Thru Comet

By R. D. FISHER, *Machinist, Ada (Okla.)* Evening News

LOOSE lines in linecasting machine operation can be costly. They will damage the matrix side walls and cause front squirts.

The principal causes of loose lines are inexperienced Teletypesetter operators, failure of the matrices to fall from the magazine due to burrs on the lugs, or gummy magazine channels, and the summer electrical storm which causes breaks in the Associated Press wire copy.

After having my share of the time consuming and costly front squirts, I have installed a simple and inexpensive loose line-tight line stop combination on a Linotype Comet.

All parts and switches (with the exception of a single part) came as standard equipment on the machine equipped with the Hi-Speed Teletypesetter operating unit.

I removed the switch (H-6742*) from the assembling elevator handle. Using a 6 pt. mold liner, I fashioned a plate and mounted the small switch on it using four 4-48 screws (Fig. 1). To actuate the switch plunger, the delivery slide locking pawl actuating spring (B799) was used. This spring was curved slightly so that when the assembler slide clamp passes over the spring the plunger is depressed, thus actuating the switch.

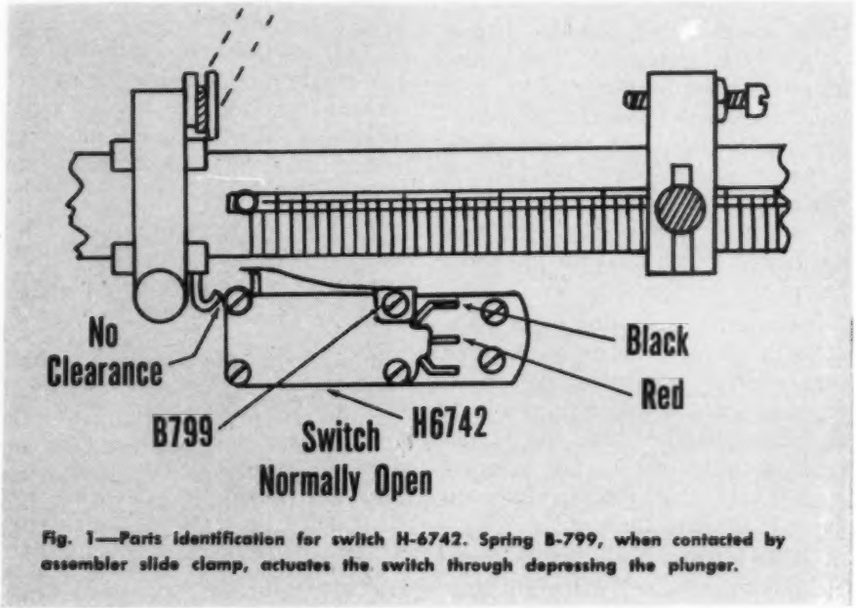


Fig. 1—Parts identification for switch H-6742. Spring B-799, when contacted by assembler slide clamp, actuates the switch through depressing the plunger.

The switch is mounted on the assembler slide mounting plate. It is positioned so it just touches the assembler slide brake spring hook (Fig. 1). The holes for the two 8-32 mounting screws are slotted so that the plate may be moved up or down to position the switch. By moving the switch up or down and increasing or decreasing the curve in the activating spring, a close setting of 0.1107 in. can be obtained before the switch is closed.

The assembling elevator catch bracket (D-6975, Fig. 2) was removed from the machine. The assembling solenoid (D-7145) was removed and turned 180 deg. so that the activating arm would move down rather than up as it originally did when operating only as a tight line stop. An extension for the assembling elevator safety catch (H-6493, Fig. 2) was made using a discarded auxiliary line safety rod (D-2914). A 1/8 in. filler piece should be used to make the overall thick-

*Mergenthaler Linotype Co. parts numbers are used in this article.

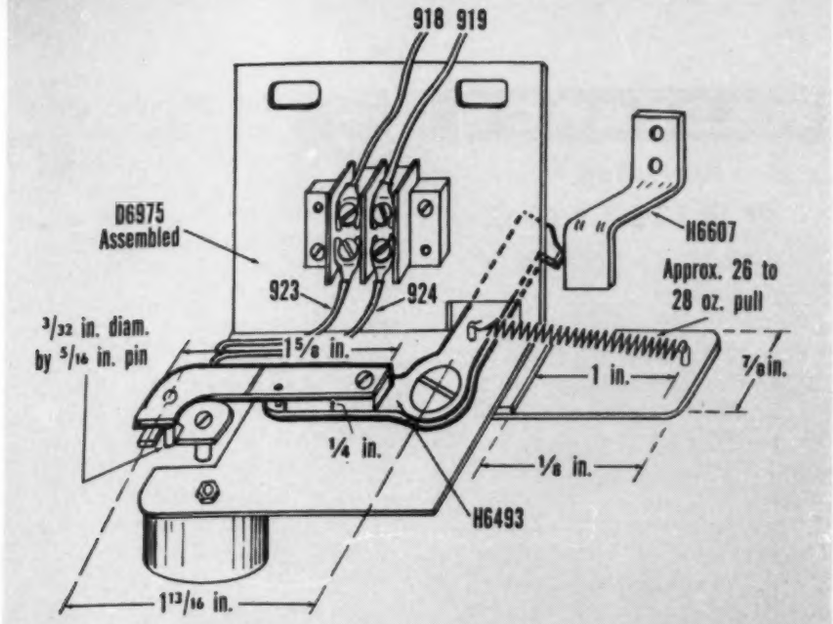


Fig. 2—Assembling elevator catch bracket showing modified positions of related parts with dimensions.

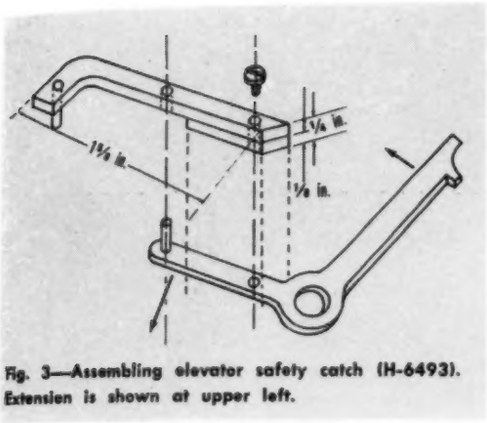


Fig. 3—Assembling elevator safety catch (H-6493). Extension is shown at upper left.

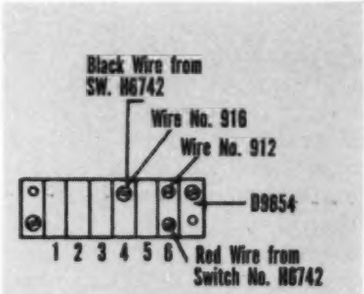


Fig. 4—Terminal strip (D-9654) on back side of swinging front shows proper wiring connections

ness 1/4 in. so the assembling elevator solenoid will be cleared (See Fig. 3 for dimensions).

Another liner was then used as an extension for the assembling elevator catch bracket so the return spring (E-5453) and spring eye (G-2802) could be placed approximately 1 in. from the shoulder of the liner. Spring pull should be approximately 26 to 28 oz. Two 4-48 screws were used to mount the strip and are not shown in diagram (Fig. 3). The assembling elevator safety catch will now remain latched after the return spring is hooked and remains latched until the solenoid operates. Remove the small pin in the safety catch.

To Position Safety Catch

To position the safety catch extension have the assembling elevator safety catch in latched position. With a scriber, mark position of the extension so that the 5/16 in. pin in the extension is centrally located in the solenoid activating arm when the solenoid is not operating. The extension is mounted on the assembling elevator safety catch with one 4-48 flt. hd. screw. Be certain that the assembling elevator safety catch opens enough to clear H-6607 (Fig. 2). Using the hole in the safety catch from which the small pin was driven, drill through the extension and replace the original pin in the catch. The two wires from the solenoid are replaced in their original positions and the entire unit replaced on the Teletypesetter operating unit (Fig. 2).

The small switch which is operated by the assembler slide clamp is wired as a normally open switch. The red wire from the center post of the switch is taken to the terminal strip (D-9654) on the back side of the swinging front and connected at bottom post in No. 6 position (Fig. 4). The black wire from the switch is taken to the terminal strip and connected to the top post in No. 4 position. All connections are soldered. (Figs. 2 and 5.)

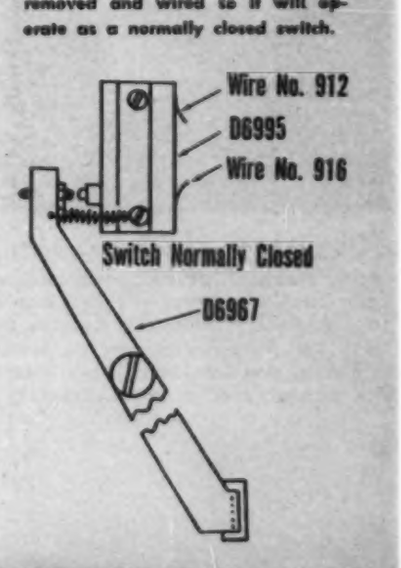
The original tight line switch operated by switch lever (D-6967) is removed and wired so that it will operate as normally closed switch and is then replaced in original position. No other changes were made and the adjustments remain the same. The wire No. 912 from the switch is then placed on the top post of the terminal strip in the No. 6 position. Wire No. 916 from the switch is placed in top position of the No. 4 post of terminal strip (Figs. 4 and 5). All screws should be tightened securely.

With the assembler slide clamp set on 11 picas (or whatever column width is used) and with a minimum number of matrices in the assembling elevator, position the activating spring so that the switch will operate just before the assembler slide clamp touches the switch lever (D-6967). With a spring bender, such as that used on the electrical clutches of the Teletypesetter perforator, a very close setting can be obtained.

How Device Functions

If for any reason there is an insufficient number of matrices or spacebands for the assembler slide clamp to activate the switch, the circuit remains broken and the assembling elevator safety catch remains latched; the yield spring in the assembling elevator handle will yield, and the assembling elevator will remain in position. The moni-

Fig. 5—Original tight line switch, operated by switch lever D-6967, is removed and wired so it will operate as a normally closed switch.



tor then inserts the missing matrices or spacebands so the line will be of sufficient length to permit the switch to operate and raise the assembling elevator.

If there are too many matrices in the assembling elevator to permit a line to enter the vise jaws, the assembling elevator slide clamp will move the lever thus opening the switch and breaking the circuit. The spring will immediately latch the assembling elevator safety catch and the yield spring in the handle will yield so that the assembling elevator will not rise. The monitor removes the extra matrices and touches the brake releasing the assembler slide. Then the slide will move backward and release pressure on the switch lever to permit the switch to close and complete the circuit, once again activating the solenoid. Then the assembling elevator is raised.

The two switches are wired parallel to each other. In other words, if a line is good the safety catch opens, and the elevator will rise. However, if the line is too long the circuit is broken, and the spring will immediately pull the safety catch back into latch position, and the assembling elevator will not rise.

For information on products, take advantage of PRINTING PRODUCTION's Reader Service Card on pages 95-96 of this issue.

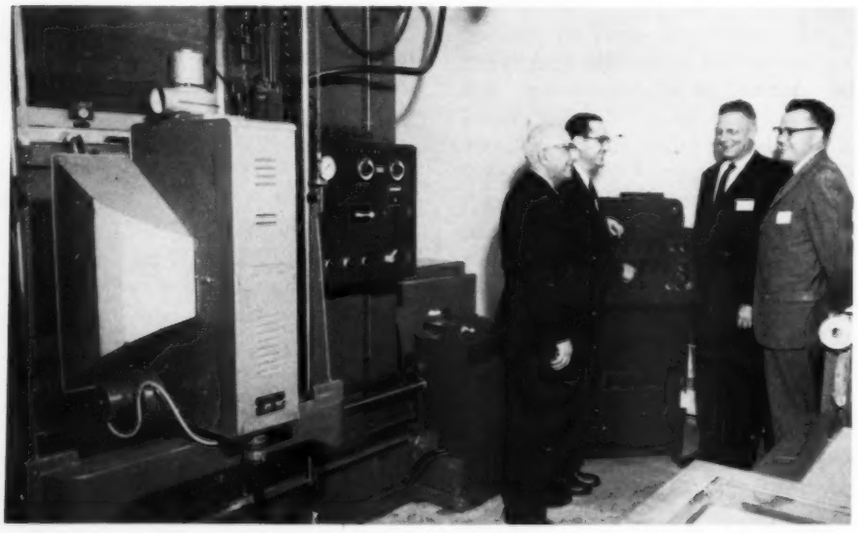
RESEARCH

Activities in PRINTING INDUSTRY

ANPA-RI Research Program Ranks High—The research program of the American Newspaper Publishers Assn. Research Institute is one of the best in U. S. industry, according to a report issued by the U. S. Department of Commerce. This was cited by Stanford Smith, ANPA general manager, when he spoke before the recent meeting of the Allied Daily Newspapers of Washington, held in Seattle.

Smith compared this favorable report with the results of the first survey of technical research programs conducted by the Commerce Department 25 years ago. At that time no substantial research program was recorded for the newspaper industry, even though the research programs with budgets as low as $15 thousand per yr. were reported.

According to Smith, the 1961 Research Institute program is budgeted at just under $600 thousand. In addition, he said, the research program of the newspaper industry is brightened by the many manufacturers of newspaper production equipment.



Sun Chemical Donates Machine to Lithographic Institute—An automatic photocomposing machine has been presented to the Chicago Lithographic Institute by Sun Chemical Corp. Sponsored by union and management of the lithographic industry in Chicago, the institute is designed to improve skills vital to the industry. Left to right, are: Mike Annick, vice president, Rutherford Machinery Div., Sun; Norman E. Alexander, president, Sun; Harry Sponholtz, vice president, and James Martin, executive director, both of the Institute.

Magnetic Ink Education and Research Program—Plans for a program of research and education on magnetic ink and character printing have been revealed by the Lithographic Technical Foundation. Approved by the Lithographers & Printers National Assn., the program is planned for the Bank Stationers Section. Under the program, LTF would conduct seminars covering all aspects of magnetic ink printing both by letterpress and offset, prepare reports and articles on its research, and publish a technical bulletin on magnetic ink printing when the project is completed.

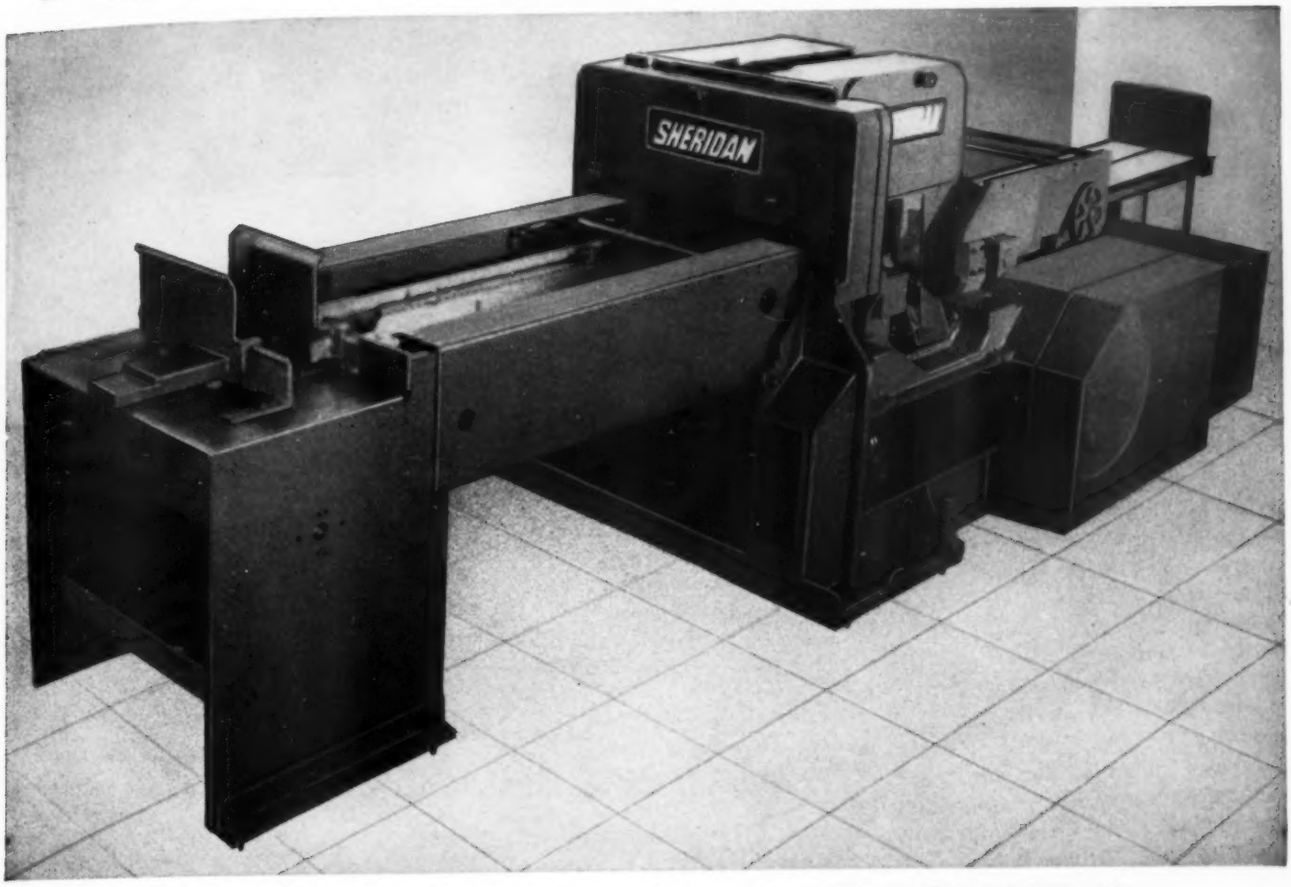
A related activity would be the availability of LTF's technical service for magnetic ink manufacturers, safety and check document paper manufacturers, reading equipment producers and bank stationer printers. New materials, processes, and equipment would be evaluated on a fee basis for suitability for use in printing and adherence to the ABA specifications.

LTF Research Group to Meet—The Research Committee of the Lithographic Technical Foundation is to hold its annual meeting at the Sheraton-Blackstone Hotel, Chicago, Mar. 15-16. The format of the meeting will resemble that of last year's meeting. Sessions on Mar. 15 and on the morning of Mar. 16 are to be open to all LTF members.

Reports on the results of research done in 1960 will be given by the men who conducted or supervised the studies. Among the areas to be covered are: Latest developments in the use of the LTF Star Target and Press Inkometer for quality control; development and commercial introduction of a new zinc wipe-on platemaking process; and a survey of the types and trends of plant troubles referred to LTF for analysis and evaluation in 1960.

Bunn Establishes Research Department—A separate research and engineering department has been established by B. H. Bunn Co., Chicago. Heading the department is Douglas A. Gregory, vice president. Function of the research department will be to seek new situations where tying can be used and develop machines to meet these situations.

PRODUCTION GOES **UP**...



AND COSTS GO **DOWN**

. . . when a new Sheridan Accu-Shear 3-knife trimmer is added to binding and covering line. Now the entire gathering-binding-covering-trimming sequence can be integrated into one continuous operation!

Accu-Shear trimmers are being used successfully in both edition and publication plants, eliminating excess material handling and storage, speeding up delivery schedules . . . cutting costs! Quality has been more than satisfactory.

The standard Accu-Shear has a capacity of 1⅜″ thickness in sizes to 17½ x 11½″ trimmed, at speeds up to 100 cuts/minute. A 2″ capacity model is available.

For even greater production economy, the Accu-Shear can be connected to a Sheridan-Taylor automatic counter-stacker, eliminating manual counting and piling.

SINCE 1835 / **SHERIDAN**

T. W. & C. B. SHERIDAN COMPANY
220 Church St., New York 13, N. Y.

PRODUCT OF 125 YEARS OF EXPERIENCE 1835-1960

For More Information Circle 157 on Reader Service Card

Information Group Appeals for Funds

Funds and volunteer workers are needed by the committee recently formed for the purpose of improving information services within the Graphic Arts. The committee was appointed as a result of the conference on Graphic Arts information services held recently at Rochester Institute of Technology, Rochester, N. Y.

The goals of the committee are: To recommend procedures for utilizing information resources that are currently available; to outline additional resources which should be developed, and to recommend a program of financial support for needed facilities.

A second committee, headed by Warren L. Rhodes, of RIT, was formed to raise $5000 to finance the operating expenses of the first committee. Graphic Arts companies have been asked by the committee to contribute $300 and services to the project.

It was stated at the conference that new means of communications are needed in the Graphic Arts because present facilities are not adequate and will be hopelessly obsolete within the next 10 or 15 years.

Communications should be made with Warren L. Rhodes, Graphic Arts Research Dept., Rochester Institute of Technology, Rochester 8, N. Y.

Press Roller Troubles

(Continued from Page 47)

(4.) Gently but briskly rub the roller surface with steel wool dipped in lye solution until the roller returns to its original color. CAUTION: Use rubber gloves or a swabber while cleaning. Keep solution away from skin and clothing. Also, mark solution clearly.

(5.) During each periodic cleaning be sure to examine the ends of rollers. Look for any signs of their being affected by bearing oil or for bumps or bruises which may cause loosening of materials, allowing the oil to seep in at the ends. In order to prevent this difficulty, keep the ends well painted with a glue composition, shellac or varnish.

Cleaning Rubber, Synthetic Rollers

Rubber or synthetic rollers should be cleaned after each press shutdown to assure best results. Follow these suggestions:

(1.) For daily washups, use naphtha, kerosene or alcohol or a mixture of these. Before non-operating periods of one or more days, or before storage, follow with a light film of kerosene which helps prevent dried ink accumulation.

(2.) For periodic washups, rub the roller surface with dried ink remover, then follow with daily washup solution. A 10% to 15% lye solution may also be used for this purpose if used with care and followed up by regular daily wash routine.

(3.) Benzol, toluol and other coal tar derivatives along with chlorinated solvents—carbon tetrachloride, etc.—should be avoided as washup solutions. If their use is imperative they should be used sparingly.

(4.) All rollers made of regular or synthetic rubber require cool dark storage. They must be kept away from sunlight and should not be exposed to extremely high or freezing temperatures.

Press rollers, by the very nature of their composition and the function they perform, need this constant, careful attention. Your printing quality will reflect such care.

Lists New York Print-Buyers

A directory of the largest buyers of printing in New York City has been published by Park South Publishing Co. The 160 page, hardcover book lists the names, company affiliations, addresses and telephone numbers of 1700 such printing buyers. The type of printing each buys is described. Price of the directory is $20 for New York printers and $35 for printers outside New York. Copies may be ordered from the publisher at 444 Park Ave., S., New York 16.

Web Feed for Sheetfed Presses

ALTHOUGH many printers have heard of the web feed for sheetfed presses, some do not fully understand its advantages and disadvantages. According to Charles W. Latham, New York Employing Printers Assn.'s lithographic consultant, the system offers money saving advantages since roll paper is less expensive (said to average $38 per T.). Sheet handling operations are eliminated as well as reduction in inventories are other advantages.

Sheets after being cut from the web, bypass the regular feeder by passing over it to the forwarding rollers. Sheets are then handled by the usual method. When the roll feed is not being used, it is merely disconnected. Arrangement for either double roll operation or for the single roll operation is provided.

The width of the roll determines the sheet width. Front to back measurements are governed by a cutoff mechanism and a variable speed feed drum. The faster the feed drum is rotated, the larger the sheet will be. If, for any reason the cutoff size should vary, it will not affect register since printing will always coincide with the gripper and side guide of the sheet. If it is necessary, however, to turn the sheets over for backing up, an uneven cutoff would make sheet feeding difficult.

Sheets are fed, after cutoff, in the normal streamfeed manner, retaining all its advantages. The web feed for sheetfed presses will operate at the highest speed that the press can register and print.

A possible disadvantage is the grain short sheets. If there is any appreciable moisture pickup in the press, the sheets will expand sideways. Pressmen cannot make any compensating adjustment for this type of stretch. To prevent excessive stretch in this direction, paper rolls should be preconditioned 8% above normal pressroom relative humidity.

Under properly controlled conditions, wavy edged paper and back corner fan should be eliminated. If the sheets must be backed up, piles should be carefully protected from moisture changes.

DELIVER CLEAN SHEETS AT HIGH SPEEDS...

BY control

EVERY INCH OF THE WAY

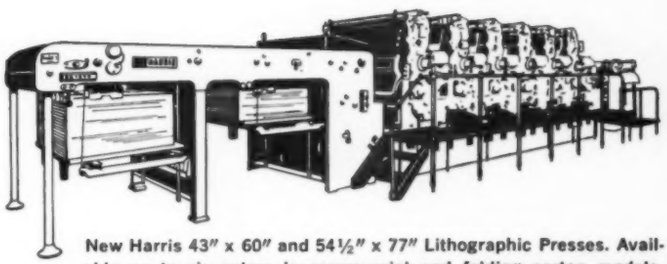
This is the moment of truth. Everything you and the press may have accomplished in lithographing the sheet depends, ultimately, on the completeness of control at the delivery end. This is the final answer to more salable sheets per hour, per man, per day . . . to more profitable production.

Harris has achieved sheet stabilization and hairsplitting register from feeder pile through transfer and lithographing. Now, in the Delivery Control Zone, as many as nine more watchdogs guard the safe arrival of paper or board stock at speeds up to full press capacity.

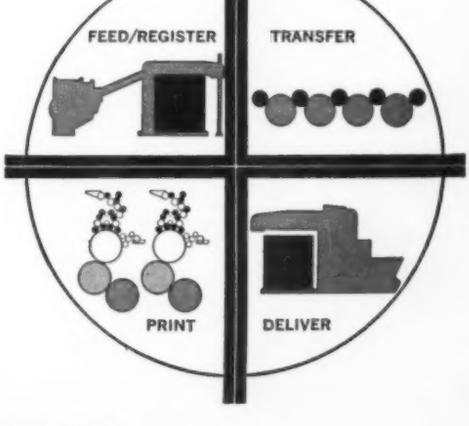
In each of four key zones, Harris design elements "sense" and respond quickly to variations in materials, to changes in operating conditions. Factors that cause down time and affect quality are under control every inch of the way.

This is Harris *Control Zone Design.*

It will keep your next press up to date for years to come. Ask your Harris representative to tell you about the Control Zone features—important reasons why a man does his best work on a Harris.



New Harris 43″ x 60″ and 54½″ x 77″ Lithographic Presses. Available up to six colors in commercial and folding carton models.



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For More Information Circle 82 on Reader Service Card

Be familiar with causes and remedies for all plant machinery

MOTOR TROUBLE

By ERNEST W. FAIR

ELECTRIC motor troubles can occur at any time despite finer motors now being used in printing equipment. The degree of trouble increases with more widespread use. Continued efficient operation of every unit is such a must that these troubles must be handled quickly.

Mounting costs of parts and labor in such repair work demand more and more attention be given to care and maintenance of every electric motor. Recognizing electric motor troubles, correcting them with speed, and giving maintenance attention to prevention of these troubles will greatly simplify our obtaining maximum performance and efficiency.

In following paragraphs are listed the more frequent troubles, their cause and remedy, that develop in electric motors. The responsibility for application of this information rests equally with management and the men in maintenance.

Bearing Too Hot to Touch or Smoking—This can be caused by a dry bearing with insufficient oil or oil rings not working, by a dirty bearing, a tight bearing which calls for scraping both bearing and shaft or replacing the bearing, or by the oil rings not working. In the latter case they have generally worked out of their slots and should be replaced.

Binding Bearing—A bearing may also be binding if the shaft has become out of true or the bearing itself may be out of true due to too much strain on the pulley or it may have been loosened by vibration. In the case of too much vibration at this point the trouble can generally be corrected by tightening the set screws holding the bearing in its journal housing.

Warm Bearings are generally caused by an overload on the motor through heat being transferred from the rotor or the stator of the motor and in such a case we should see that either the load is decreased or a larger motor used.

Windings Smoking or the wedges over the coils charred mean the bearing is worn on one side and if this is discovered soon enough the bearings may be realigned or new wedges inserted to correct the trouble. If the condition is permitted to remain too long a period of time the coils will have to be replaced.

Motor Fails to Start—Failure to start can be caused by a great many things of which the following occur oftenest:

(a) Voltage is too low and there is therefore insufficient torque, which calls for an increase of the voltage.

(b) A short circuit, caused by rough handling, generally in the stator windings. The damaged coils may be replaced or the break repaired by jumping the damaged coil or coils.

(c) Too great a load will often be the cause of a motor failing to start. This calls for load reduction or the installation of a clutch between the load and the motor.

(d) Tight bearings will cause friction. Bearing caps can be easily loosened and if the condition continues the bearings should then be scraped.

A failure to start where automatic controls are used is generally found in the controls themselves where the general cause is that the solenoid circuit is not functioning due to the battery circuit being open, the arms holding circuit-breaking contacts are not working properly or the contacts are dirty or burned.

Failure to start, in addition to the causes mentioned above, can be easily detected by first examining the fuses, then the relays, checking the starter carefully, inspecting the air gap and removing the belt or pulley to find out if there is an overload.

Lagging Motor Speed is the result of insufficient torque caused by the rotor field in the circuit due to the discharge switch being in the wrong position whereupon the circuit between the exciter and the motor field windings should be opened. It may also be caused by the motor load being too great.

Buzzing Sounds in the motor are generally caused by a short circuited coil or group, an open circuit or a ground. The first named is generally due to mechanical injury or to broken down insulation caused by overheating. Here we need to install a new coil or jump the injured coil as a temporary expedient. Where it is caused by ground trouble we should remove the ground as soon as possible and re-insulate.

Low Growling Sounds are caused by the rotor being out of the stator magnetic center which in turn means that the motor itself either is not level or the shaft collars have shifted and there is thus too great end play on the shaft.

When the motor starts and runs but heats up while the stator is cool the rotor bars are loose or grounded because of abnormal currents in the rotor. The set screws holding the rotor bars to the short circuiting rings should be tightened and soldered or welded and then the grounds removed.

Half Speed Running on a wound

rotor motor is caused by broken connections between the windings and the collector ring or one brush is not touching and an open circuit in the rotor connections results. The break can be repaired or the worn brush spring replaced easily.

Explosions sometimes occur in windings while a motor is running hot. These are due to dampness which causes circulating currents between the coils and between any coil and the ground and thus creates a temporary ground or short circuit. The procedure here calls for baking the motor until all dampness is gone and then brushing it with a good insulating varnish. Sometimes it will be found that the coils have been punctured and need replacement.

Failure to start with the starter handle in starting position and a humming sound is a frequent trouble because the motor is trying to run single phase, an air gap is displaced or there is an open circuit in the stator windings.

When the motor is trying to run single phase it is generally because one fuse is blown or one overload relay is out of order and this can be easily handled by adjustment of the relay or replacement of the fuse.

In the second named trouble the bearing is out of true and should be shimmed or replaced with a new bearing if possible to do so.

Where there develops an open circuit in the stator windings this has been caused either from a short circuit which has punctured a coil, or from rough handling.

Sometimes when a motor has been repaired and replaced at its job it will seem to run light with an unusual sound and intervals of speed changes. Generally this is because one coil in one phase has been reversed due to wrong connections when it was replaced or reconnected.

Burned Insulation, brought about by one or more coils in the stator being too hot from a short circuit, is due to mechanical injury or to broken down insulation. This calls for just one thing and that is replacement of the coil though the motor may be put into temporary service if the new coil is unavailable by jumping the injured coil.

For More Information
Circle 140 on Reader Service Card→

Variable Humming Sounds in electric motors are usually caused by high resistance in the line (generally on long transmissions) or unstable speed of the prime mover on the alternator supplying the motor.

Many electric motor troubles can be eliminated by being certain that the highest grade of oil is used in sleeve bearings and the best grade of grease on roller and ball bearings. It has been found that the average electric motor troubles result from either improper oiling or complete lack of maintenance attention. The high degree of dependability of modern electric motors sometimes causes the best of us to become just a little lax in proper maintenance attention to them.

Craftsmen Charter Indiana Club

Robert M. Edgar, president, International Craftsmen's Assn., recently presented a charter to the newly-formed Evansville (Ind.), Club. The organization was created by Indianapolis Craftsmen's Club.

ONE TOOL
ALWAYS FITS BEST
OXY-DRY INK OFFSET PREVENTER
ELECTRONIC DISPERSAL DRY POWDER SPRAYER
• Operates Automatically—completely covers entire width of sheet or web with even, fine coat of dry starch powder.
• Faster Press Speeds—positive ink offset prevention permits fastest press operation desired and full press loads.
• Removes Static Electricity—provides perfect, jam-free delivery jogging and subsequent binding and finishing production.
• Most Efficient, Costs Less—uses least powder and by far less time and effort to operate and maintain.
• No comparison—there is no other method of ink offset prevention to compare with OXY-DRY...it is the best!
HOW TO BUY OXY-DRY
We are not afraid of price—send us the Press Model Number, Maximum Sheet or Web size and LET US DETAIL YOU fully by mail. Our sales-engineers will gladly be there too, if you want a head-to-head, barrel-head deal done! Do it, don't delay profits!
OXY-DRY
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*Fully protected by U. S. patents
OXY-DRY SPRAYER CORPORATION
NEW YORK CHICAGO SAN FRANCISCO
1134 W. Monroe Avenue, Chicago 13, Illinois—LO 1-1264

Cold Type Surveyed by Production Manager

(*Continued from Page 50*)

adequate lighting. A light floor reflects 30% of its light. A dark floor reflects only 10%.

One of the latest newspaper plants to adopt photocomposition for display advertising is the St. Paul *Dispatch* and *Pioneer Press*. Al Rosene, production manager, reported recent installation of the Linofilm system in his plant.

In making a preliminary survey of the photocomposition method, he said it was difficult to secure information about costs due to reluctance of users to answer questions. He was confused regarding page cost comparisons during a recent meeting. On a selected piece of copy, it seems that the average time consumed in composing the ad in a number of plants by the hot metal method was 7 to 8 hrs. On the same piece of copy, costs for composition of the page by the cold type method in various newspaper plants ranged up to 32 hrs.

Rosene explained that after starting photocomposing operations in his plant, a glazed paper proof file of line etchings and borders has been established. In the same way, any combination of figures, including ½ price figures on acetate film, are kept in the file cabinet.

In exhibiting a page ad proof for a local advertiser, he said that when composed in his plant by the hot metal method, time consumed was 30 hrs. The same ad produced by photocomposition took approximately 12 hrs.

Printing from Original Engravings

Direct printing from original engravings continues to find acceptance on some newspapers. Two reasons were cited by Aaron Bales, assistant to the production manager, for its use on his newspaper, the Indianapolis *Star-News*. They are: (1) It allows us to run entire press runs without changing plates; (2) It allows us to run news events in color quickly and with excellent reproduction.

Speaking at the Conference's engraving session, Bales commented on the double coated tape used to hold the engraving to the saddle. He said some slippage had been noted and they were afraid this slippage would cause trouble when running color.

The trouble was corrected by development of a plate laminator by Ed Throm, head machinist. It was made from an old double-truck trim machine to which was attached an adjustable hard rubber roller that would swing the full length of the saddle. The roller is rolled over the mounted engravings, each time adding a little more pressure until each engraving is held firmly in place.

Bales' endorsement of the direct printing method was voiced when he said: "We run a black plate direct every Sunday on the bride's page. This is a cover page on a predate section run of about 350,000. This page runs the entire edition without replating. We have printed close to 500,000 on one of these plates without noticeable signs of wear."

Finer screens are possible in direct printing, said another speaker on the subject, Norman Pozniak, sales manager of the Magplate Div. of Brooks & Perkins, Inc.

He said the Oklahoma Publishing Co. has gone from 65 line screens to 75 line screens, printing on conventional newsprint, with good results. This newspaper plant, he said, has also found it can get to press faster using direct printing. After engravings are made, two sets of color plates are on the press within 30 min.

Harder Packing Improves Printing

"If you operate fairly good press equipment and are receiving reasonably good plates cast from packless mats, harder printing press cylinder packing warrants your consideration," summed up George Stiffler, pressroom foreman, Des Moines (Ia.) *Register* and *Tribune*. He addressed the pressroom session.

Speaking at the pressroom session, Stiffler commented that as a result the quality of printing will be improved and the cost of press packing should be reduced.

In the *Register* and *Tribune* plant, two-piece packing is used with the underpacking or hardened cork. Stiffler reported that on two press

WHAT'S AHEAD FOR THE READER

Are you considering a new plant? A better arrangement of your present one? Modernization? Equipment additions? If the answer to any one of these is "yes" then watch next month for the feature section of *Printing Production's* Plant Planning and Improvement Issue.

There will be page after page of stories of how many different kinds of Graphic Arts companies planned their present plants. These are presented in a portfolio of ideas on workflow, equipment arrangement, lighting and flooring, building dimensions, department locations, air conditioning and humidifying, materials handling, etc.

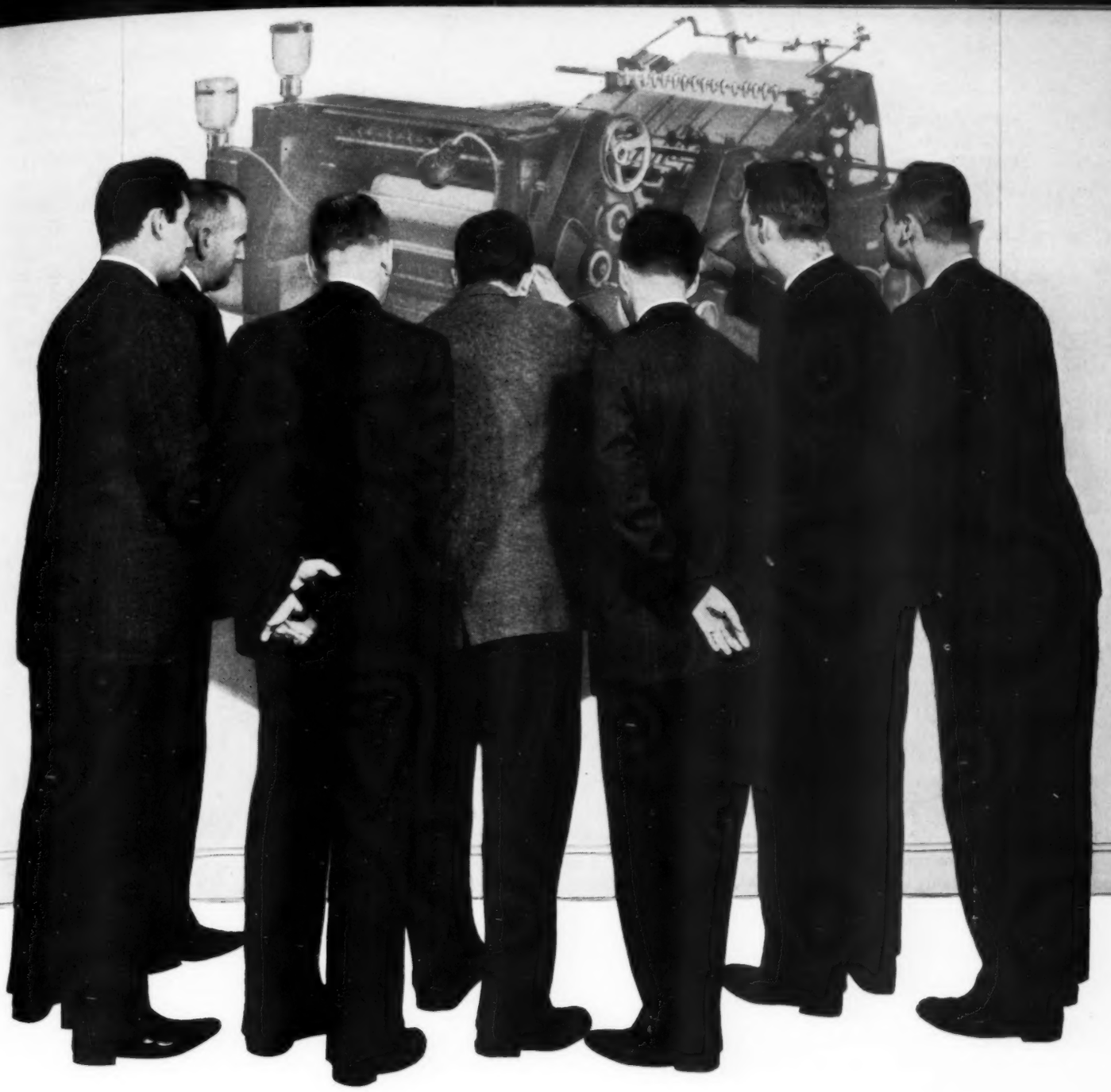
One valuable feature is written by a nationally known authority. He will relate actual experiences of some companies in planning their plant layouts in relation to departmental hour costs. The author will show what it cost before the changes were made; what it cost afterwards.

Have you ever heard of round houses for printers? We hadn't until an engineer showed us suggested layouts for a circular printing plant. He'll show you how it can be done in a most unique feature presentation of the March issue.

There also will be stories on how to arrange litho platemaking and photoengraving departments and plants. One will show suggested layouts for litho platemaking and camera rooms; the other will illustrate the same as it applies to photoengraving.

In addition, there will be the regular features of each issue; News of the industry, Idea File of time saving tips, reports on the latest equipment, and other helpful information for production-minded executives.

For More Information Circle 65 on Reader Service Card→



NEW–from Heidelberg!

- It's a letterpress • it's a two color • it's a single color
- it's a flatbed • it's a rotary • it's a wrap-around • *it's a litho press!*

It's a complete printshop–all in one Original Heidelberg. Write for details.

ORIGINAL HEIDELBERG®

Main Offices

Heidelberg Eastern, Inc.
73-45 Woodhaven Blvd., Glendale 27, Long Island, N.Y.
Telephone: TWining 6-5500
New York City Display Room–350 Hudson Street

Heidelberg Western Sales Co.
1700 South Wall Street, Los Angeles 15, California
Telephone: RIchmond 9-1251

Rush *me information on this exciting new press.*

Name_____

Company_____

Address_____ City_____ State_____

units during the past eight months average blanket life has been 40,000,000 copies and 23,000,000 copies included ROP color.

The amount of impression during the time the harder packing has been in use has been reduced sharply. He has been using the new type of plastic form rollers on the two press test units. He related: "When the packing was applied, the cylinders were gauged and the form rollers set. The roller set remained throughout the life of the blanket."

Stiffler mentioned that some minor problems remain in connection with the use of plates cast from packless mats and harder press packing. One of these is the printing of low spots in a plate or a shallow plate itself. With the softer packing ". . . you can always add a little impression to correct the problem. But with the harder packing this isn't always feasible. Generally, you will find that underlaying the low spots or low plates is the best solution."

Reports on ANPA Research

Roy W. Prince, technical research director, ANPA Research Institute, Inc., Easton, Pa., spoke on current work being done at the laboratories.

An instrument for easily determining in the pressroom the relative printing quality of any newsprint sample is under development. When it is desirable to run your highest quality newsprint for certain pages, this may be determined by an actual measurement before the required run.

Prince also mentioned work on an improved anti-ruboff news ink. He said: "We have an ink that looks very encouraging and which utilizes water rather than oil in its formulation."

One activity at the Easton lab is development in cooperation with RCA of application of the Electrofax process. This work involves obtaining images on the engraving flat directly from exposure of the sensitized metal in the camera without necessity of preparing a film negative. (See page 42, this issue.)

Progress in establishing automatic operation of a newspaper mailrooms was reported by a number of speakers at the mailroom session.

Walter Cordes, Chicago *Tribune*, read a paper prepared by George Murray of the Detroit *Free Press*. Murray discussed four-month operation of inserting a 7 in. by 10 in. *TV Channel Magazine* with the Sunday *Free Press* comic section.

The magazine is not large enough to fill the standard hopper. For that reason the T. W. & C. B. Sheridan Co. supplied a modified standard two-speed head with modifications in the operating cams.

Murray explained that the magazine is 4 in. narrower in width than the *Free Press* standard magazine. The magazine scarcely came in contact with the rear pile lift. A spring steel extension bar was installed to overcome the feeding difficulty.

To permit release of one copy of the TV magazine at a time from the stack by the sucker bar, adjustable tension means was provided.

In addition, the needle holder supplied with the hopper was modified so it will hold two needles. The two-needle arrangement, one above the other, distributes the weight of the stack evenly.

Al Cook, Indianapolis *Star-News* day mailroom foreman, reported upon operation of the Cutler-Hammer stacker. He reported that on 625 day and night shifts during the past year the mailroom had to resort to the old table method only seven times and only three times for an entire shift.

Chairman Robert Smith said that during the time the stacker has been in operation papers have varied from 20 to 80 pages. However, the impulse counter must be regulated to suit the number of pages in the paper. During the last six months only two solenoid air valves have been lost. Smith stated it is easier to replace the valve in its entirety rather than attempt to rectify the difficulty.

Printing Careers Offer Opportunity

William T. Coulter, Bruce Publishing Co., Minneapolis, discussed printing careers at a recent career conference in Minneapolis.

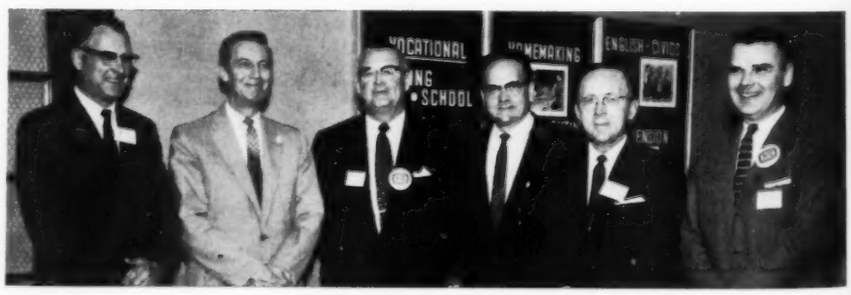
According to Coulter, there has been a continuing increase in the number of wage earners in the printing industry. He credits this increase to the introduction of new equipment and processes that have made it possible to do more printing for general consumption.

Coulter stated that average weekly earnings in the printing and publishing industry rank as the highest in the top 10 basic manufacturing industries.

He said that the industry presents good opportunities for advancement because it employs one salaried worker for every 1.6 wage earners. According to him this ratio exceeds that of any other industry.

Coulter recommended that students interested in printing careers take advantage of training programs offered. He also urged that prospective printing apprentices acquire a broad general knowledge because a printer is a combination scholar, artist, businessman and craftsman.

Coulter estimated that there are more than 30,000 printing establishments in the United States. Thus the printing industry ranks number two in the nation as far as number of establishments are concerned.



Planners of the Minneapolis printing career conference included, left to right: Ralph H. Johnson, Minneapolis Board of Education; Norman Jensen, principal, Minneapolis Vocational School; Felton Colwell, education chairman; Ray Nord, conference committee, William T. Coulter, president, and John Bolger, conference committee co-chairman—all four from the Printing Industry of Twin Cities.

For More Information Circle 74 on Reader Service Card→

How to keep Monday's cash register ringing on Sunday

Thrifty Great Northern Groundwoods put new "sell" in Sunday magazines

One of the biggest things in newspaper history is the exciting growth of Sunday supplements. Today there are three of them for every two published a scant four years ago. There's one big reason. Supplements *sell.*

Drugs, cosmetics, toiletries . . . cars, cake mixes, cooking utensils — all come before the family's eye on the day of the week when the family has the most time to eye them. More and more, they are coming in color, to set America's fabulous storehouse of good things for good living before the American family at their inviting best.

An American company on the go, Great Northern is proud to be partner in this progress with its popular new Groundwood Printing Papers. Clean, white, strong, opaque and thrifty, they offer high-speed printability, low unit cost, sparkling color reproduction that sells.

As publisher, printer or advertiser you are invited to ask for printed samples of Great Northern's supplement papers, custom-made to your requirements by men who know how in modern mills in the Great Northwoods of Maine. See the difference good papers can make — in *your* sales and profits. Call your Great Northern representative. He's as near as your phone.

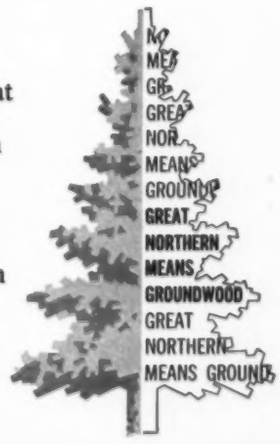
GREAT NORTHERN
PAPER COMPANY

A Leading U. S. Producer of Groundwood Printing Papers

Mills in Maine

Sales Offices: New York, Chicago, Boston, Cincinnati, Washington

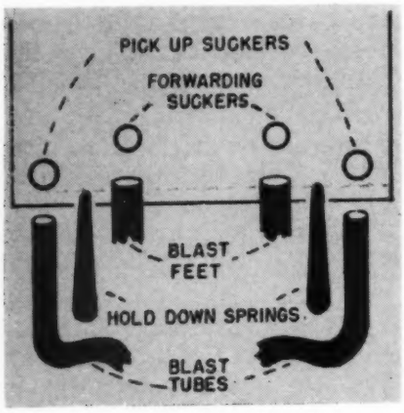
Each and every *day* . . . Great Northern's "Groundwood Tree" is the source of enough specialty printing papers to wrap 15 Empire State Buildings. And still demand grows — evidence of the contribution of this American paper company "on the go" to an America On The Go.



MORE OUTPUT ON 17x22 PRESS

The conventional method of feeding on a 17x22 press is to employ combers on opposite ends of the stock. The method explained here eliminates the use of combers entirely. A hold-down spring is used near each pickup sucker. I have found this method more efficient and production is increased substantially.

For 16 lb. paper, and up to index or even heavier stock, two flat 0.015 in. thick hold-down springs are em-



ployed; on manifold and tissue paper, the springs are 0.010 in. thick.

The pickup suckers should be adjusted to a height of 1/4 in. above the stock. The hold-down springs are positioned directly in the middle of each pickup sucker and extend 3/8 in. into the pile of stock. This procedure holds for all stock except manifold and tissue.

For manifold and tissue, everything remains the same except that the hold-down springs (shown in diagram) are changed to the 0.010 in. thickness. They are positioned directly between the pickup suckers and forwarding suckers. A very light spring tension and very light air blast should be used.

An air blast is directed into the pile of stock below each pickup sucker. The forwarding suckers are positioned about 2 in. away from the pickup suckers. The blast feet are positioned directly behind the forwarding suckers.—*Ted Warminski, Baltimore, Md.*

HOW TO GET RID OF HICKIES

One of the answers to the many complaints regarding hickies (white spots in printing) is the presence of annoying loose particles on the paper sheet. By wiping the edges of paper in the pile with a black cloth you can easily determine the presence of loose fibers caused by dull or knicked trimmer knives. These bothersome particles can usually be removed by rubbing the sides of the paper pile with a cloth moistened with glycerine. If this does not work, try vacuuming the sides of the paper piles to remove all traces of loose fibers.—*Don Lane, Scott Printing Co., Jersey City, N. J.*

ELROD STARTING STRIPS

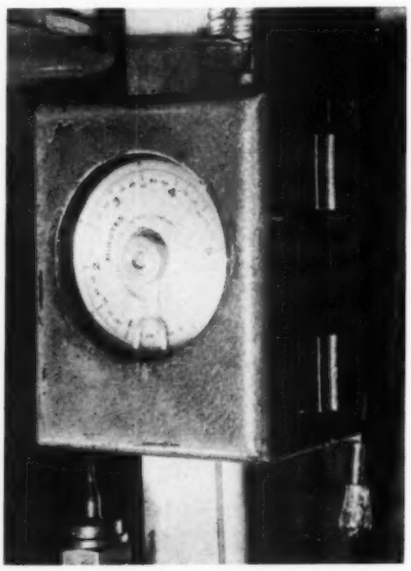
We were continually losing time looking for the right Elrod material mold starting strip because the strips kept falling from their regular rack. I put up a board on the wall after driving in 8-penny nails from back out, about 2 in. apart. Holes were drilled with a No. 27 drill in each mold starting strip. We keep several starting strips in the same rotation as the molds. Molds are listed on a card on the wall, as they are kept from left to right in the oil.—*Carlton Wren, composing foreman, Endicott (N. Y.)* Daily Bulletin. *Courtesy of the Kimberly-Clark Corporation.*

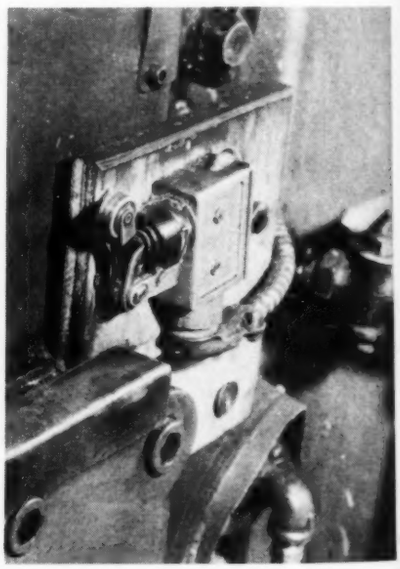
Devises Stereo Plate Cooling Timer

When we installed our Pony Autoplate it was fitted with automatic metal temperature control, vacuum casting box and pneumatic pump. The plates are cooled automatically when the cover is closed over the finished plate. This equipment is far advanced over previous machines.

With five different men working on the machine, however, no two of them allowed the newly cast plate to remain in the casting box the same length of time. According to which of the men operated the machine, some plates would be properly cooled while others would be removed in an insufficiently cooled state from the casting box.

Plate taken out of the casting box in insufficiently cooled condition fit loosely on the press plate cylinder and make for a slam-bang noisy run. Also, loose plates pos-





Timer in left picture indicates end of proper cooling period for stereo plate at Fall River (Mass.) *Herald-News*. Picture at right shows Micro-Switch which starts timer action.

sibly can fly off the cylinder and cause damage to the press.

We decided to find a way to regulate the plate cooling period so that no matter which of the men operated the machine the plates would be cooled a uniform length of time.

We did this in the following manner: From an old curved mat drier, I removed the timer. A small electric bulb was installed on the left side and to the rear of the timer casing (left picture). The timer was mounted on a column under the metal temperature indicating pyrometer. The timer was set to light the bulb every 30 sec. with a 3 sec. illuminated period to allow for opening and closing the casting box.

The minute-marked dial rotates from zero to 30 sec. There are electrical contacts at these two points. These contacts light the bulb which remains lit for 3 sec. The dial turns back and forth from zero to 30 sec. At each end of dial travel the bulb lights and the casting box is opened.

In the right hand picture is shown a Micro-switch attached to the casting box at the end of and in line with the runway or track for the casting box core carriage wheels.

A carriage wheel trips the Micro-switch when the casting box is closed. In turn the bulb is lighted for 1 sec. or more, then is extinguished. The interval from the time the bulb goes out until it is lighted again is 30 sec. Upon lighting, the box may be opened, at which time the light is extinguished.

Now we have uniformly cooled plates, each being kept in the casting box exactly 30 sec.—*H. J. Ratcliffe, Fall River (Mass.)* Herald-News.

GIVES BONUS TO CUSTOMER

Instead of wasting the unused marginal sheet areas of a large job, you frequently gain lots of goodwill by giving the customer a bonus of packing inserts or other small pieces on the "waste" areas. The customer is delighted because his cost is so little compared to what it would be for a special run.—*Adapted from an idea sent in by William F. Finn, William F. Finn & Associates Adv. Agency, Tyler, Texas. Courtesy Kimberly-Clark Corporation.*

An automobile engine valve and a length of ¼ in. pipe form a pot crucible well scraper for line casting machines. The tool may be also used to remove the oxide ring which sometimes forms in the well.

Scraper Removes Oxide Ring in Pot Well

An effective linecasting machine pot crucible well scraper can be constructed from an automobile engine valve and a length of ¼ in. pipe. Over-all length of the tool (shown in the picture) is 15¼ in., while the pipe length is 13½ in. The well can be scraped regularly with this tool. Usually, the valve seat is turned down approximately 0.010 in. below 2 in. diam.

This scraper is also useful in removing the oxide ring which sometimes forms in the well because of the normal position of the plunger.

In this instance, the valve stem was turned down slightly to fit snugly into the pipe, both being held together with a pin.

When inserted in the pot well, the molten metal will expand the scraper head slightly. The scraper edge will be dulled through repeated use and may be sharpened.

Deformation of the concentric shape of the pot well through long use is bell shaped or elliptical front to back. This deformation is indicated when the surface of the metal boils upward as the plunger makes its downstroke. If it is desired to restore concentricity to the well a straight reamer may be used.

Before the well reaming operation is done, the amount of wear in the well can be determined by providing yourself with a set of feeler gauges. These consist of several separate valves each varying about 0.005 in. front to back with a maximum 2 in. across as indicated in the picture by the two straight lines scored on the underside of the valve head. After the amount of wear in the well has been determined (say 0.010 in.) the well may be reamed and the proper oversize plunger applied.—*James O. Austin, Newark, Ohio.*

For the Reader

A chance to be paid for ideas which have netted savings in time, money and effort in your printing plant is offered readers of *Printing Production*. If your idea is accepted for publication it will be printed in the Idea File, a regular *Printing Production* feature, and a check will be mailed to you.

Send as many as you wish to: Idea File Editor, *Printing Production*, 1276 W. 3rd St., Cleveland 13, O.

SIMPLE WAY TO MAKE UP FORM FOR CONSISTENT PAGE MARGINS

We use a simple method to determine the margins when laying out a book or booklet to obtain consistently regular margins for each page throughout the job.

We take a sheet of the stock to be run on the press. The sheet is then folded by hand according to the number of pages in the form.

On the first page of the folded signature, mark in the outline of the page with rule and pencil. Then mark the outline of the stock which is to be trimmed from the signature. Then pierce the stock carefully with a pin at each of the four corners of the type page.

The sheet is now unfolded and laid out flat. Measurement is taken between the pin holes to determine the amount of furniture to put between the pages. If carefully done, this method of determining width of furniture between pages will result in a neat job.—*Richard J. Fastner, editor,* Cloud Chaser Magazine, *Saint Cloud, Minn.*

Newspaper Dispatch

(Continued from Page 43)

All ads are time stamped by the salesman when submitted to dispatch. An accurate check can then be made on late ads and copy, and the salesman responsible for not meeting the deadline.

Dispatch next gets the necessary mats out of service. After properly marking the mats with the advertiser, number and day to run, the clerk inserts them in a reinforced envelope upon which the advertiser's number is written, the date to run, number of casts to be made, etc.

The dummy of the ad is processed in dispatch where width and depth of illustrations, sigs, etc., are all noted. Also a note is made of any missing material.

A system of rubber stamps is used such as MIS (mat in stereo), zinc, cast, repeat ad, etc.

The ad and copy is now delivered to the markup desk; the envelope containing the mats is sent to stereo. Any zincs, signatures, etc., are deposited in the correspondingly numbered tray in composing.

The only mats handled by markup are the large chain food stores and classified display, the latter being brought to the markup desk by dispatch personnel.

Envelopes containing the mats are delivered to stereo. After processing, the mats are put back into the proper envelope along with the casts and delivered to composing. Here the envelope and contents are placed in a handy receptacle beside the numbered tray rack.

In the meantime, the ad has passed through markup, the ad machines, and type is now in its proper tray.

Ready For the Floorman

The floorman takes the ad from the hook, gets his type, etc., from the corresponding numbered tray, and finally his casts from the envelope with the same number. Now having all the components of the ad before him, he is ready to make up the ad.

At the end of the day all envelopes and mats, sigs, zincs, etc., are returned to dispatch and properly filed. Through the filing and envelope system we now have an absolute check on all store mats, zincs, sigs, and other material.

When the press run starts, dispatch receives copies of the day's issue and work the tear sheets from a master list—filing what should be filed. Those to be delivered to advertisers are inserted in attractive printed envelopes, and along with any proofs ready, delivered the day of publication.

Before the press starts to roll, dispatch submits to the foreman a list of hold and repeat ads. This is in addition to the list of "tf" ads already in makeup's possession.

The approximate cost of physical equipment for our dispatch and control department was $6000. Three girls man the department; their days and hours are staggered. Our lineage at present is approximately 840,000 per month or about 60,000 in. We also average five to six color pages per week.

Use the convenient yellow Reader Service Card found in this issue for requesting free literature offered in PRINTING PRODUCTION.

put your "HOT METAL" problems in experienced hands

Imperial with nearly 50 years service to thousands of type metal users, offers experienced hands to guide your "hot metal" operations efficiently and economically.

For better printing, may we offer this tested service to you. Talk to your Imperial representative when next he calls.

Imperial

IMPERIAL TYPE METAL COMPANY

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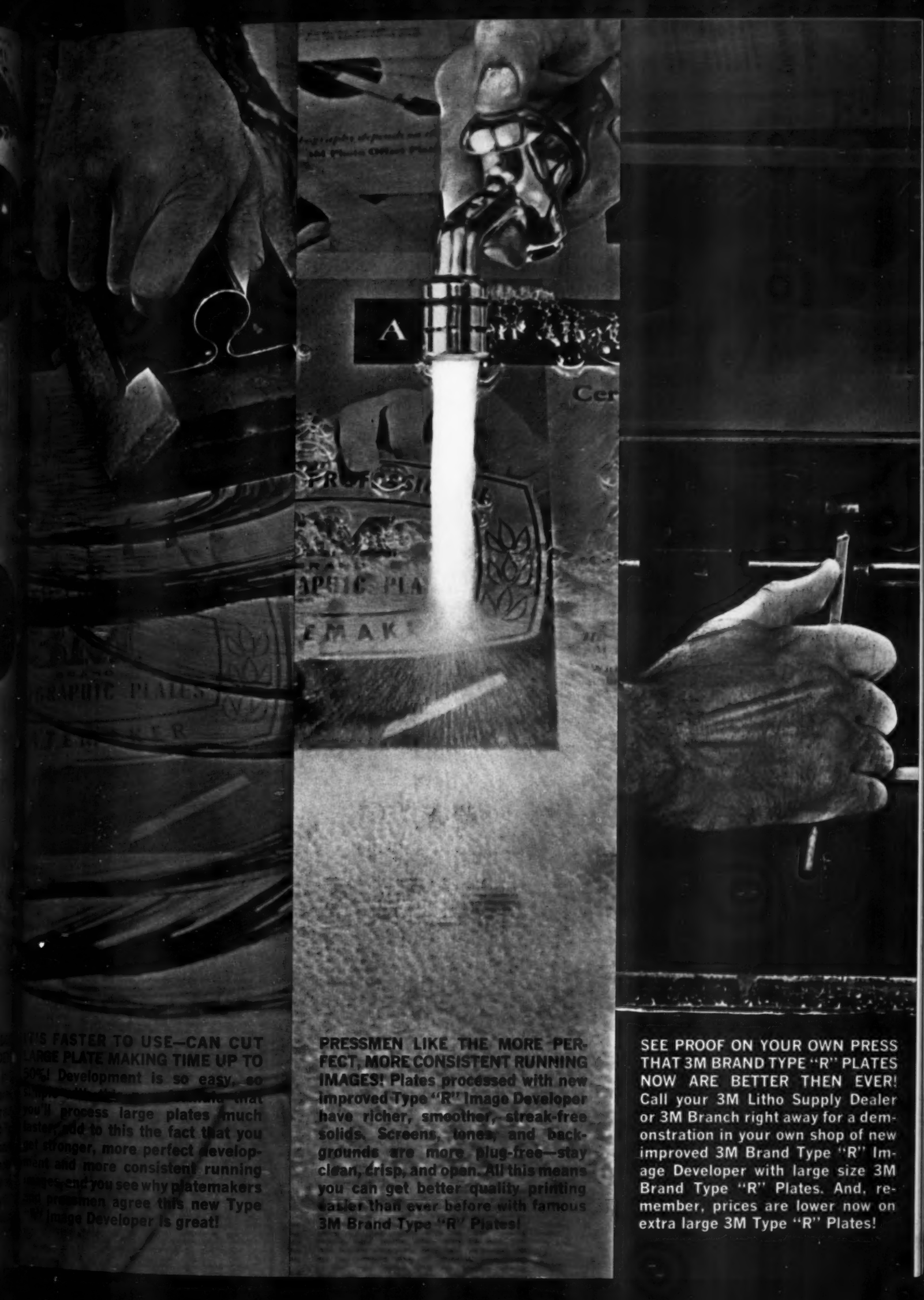
NEW 3M BRAND TYPE R IMAGE DEVELOPER STAYS WORKABLE LONGER

IT'S EASIER TO USE—YOU ADD PROCESS GUM DURING DEVELOPMENT! After desensitizing in usual way, just pour this formula developer on the smooth aluminum surface of "R" Plate and rub up the You'll have no streaks, plugging, or drying out. It moist and workable during ment—even on largest size

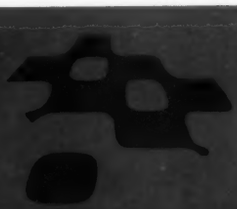


...S FASTER TO USE—CAN CUT ...ARGE PLATE MAKING TIME UP TO ...50%! Development is so easy, so ... process large plates much ...faster, add to this the fact that you ...get stronger, more perfect develop... and more consistent running ...images, and you see why platemakers ...pressmen agree this new Type ...Image Developer is great!

PRESSMEN LIKE THE MORE PERFECT, MORE CONSISTENT RUNNING IMAGES! Plates processed with new improved Type "R" Image Developer have richer, smoother, streak-free solids. Screens, tones, and backgrounds are more plug-free—stay clean, crisp, and open. All this means you can get better quality printing easier than ever before with famous 3M Brand Type "R" Plates!

SEE PROOF ON YOUR OWN PRESS THAT 3M BRAND TYPE "R" PLATES NOW ARE BETTER THEN EVER! Call your 3M Litho Supply Dealer or 3M Branch right away for a demonstration in your own shop of new improved 3M Brand Type "R" Image Developer with large size 3M Brand Type "R" Plates. And, remember, prices are lower now on extra large 3M Type "R" Plates!

Four reasons why you get better printing quality at lower production costs with pre-sensitized 3M BRAND Type "R" Plates



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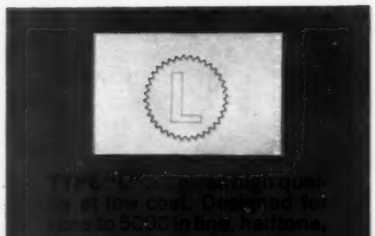

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TYPE "S" . . . the only positive pre-sensitized surface in the history of lithography. Amazingly simple to use, unbelievably easy to process. Type "S" is the superior plate for superior printing.

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Machinists Consider Tough Problems

During the machinists' session at last month's Great Lakes Mechanical Conference in Cincinnati, some of the more serious line casting machine maintenance problems were considered.

Regarding the sinking of type characters on Ludlow slugs under stereotype matrix molding pressure, Harry Perry of Ludlow Typograph Co., mentioned adjustments which should be looked into. These are: (1) Play in plunger rod and/or pin; (2) Plunger height in pot crucible well; (3) In case of a character break at the end of the slug, he prefers to break the character at the right of center where the break is optional; (4) Loose fitting plunger in pot well.

Theodore Gardiner stated he had drilled a 1/8 in. hole in each end of the mouthpiece. This, together with good pot lockup with the mold, allows more metal to enter the mold. Gardiner added that sometimes character sinks are caused by improper lockup of mouthpiece and matrix in cases where slugs measure from 0.924 in. to 0.0926 in. high. Another item to watch is that the underpinning is solid and of proper height.

Cecil Watkins, Sidney (O.) *News*, mentioned that overburnishing type faces causes sinks in molding pressure especially if there are air pockets immediately beneath the face.

Matrix Life on TTS Machines

One person asked about the length of life of straight matter matrices on TTS operated linecasting machines. George Bolton, South Bend (Ind.) *Tribune*, stated that the first matrices in a font to be affected are those carrying one and two tooth combinations.

Normal life expectancy of matrices can be obtained by meticulous attention to the second elevator and distributor transfer adjustments. During these transfer operations, matrix teeth can be worn down precipitately unless these adjustments are kept in fine condition. Bolton said matrix fonts have been used over three and four year periods on TTS operated machines in the *Tribune* composing room. "This is equivalent to seven or eight years of manual operation," he concluded.

The problem of a chilled face on the right side of recessed display slugs was given attention. Herbert Lind stated an apparent cause is due to dross separating out of the metal during the plunger casting stroke. During this action, the dross builds up in the crucible throat.

Several speakers from the floor stated they removed the back milled mouthpiece and applied the solid type of mouthpiece. Rex Phares, Manitowoc (Wis.) *Herald-Times*, said the recovery rate of the mouthpiece heating element has something to do with progressive accumulation of metal and/or dross in the crucible throat. He suggested checking out the line voltage to see if there is a heat variation or if the heat is sufficient. He suggested that 12-24 V. transformers be applied. In this way quicker temperature recovery will be obtained.

Ejecting Display Slugs

No one seemed to have a positive answer for the stalling of a machine when ejecting all point sizes and widths of recessed display slugs.

It was generally agreed that the stalling of display slugs at ejection was not always due to metal or mouthpiece temperature control. One comment was that stalling is due to the rib arrangement on some molds.

Joseph Schoch, Green Bay (Wis.) *Press-Gazette*, said he had relieved stalling to some extent by not tightening the center mold cap clamping screw. Rex Phares, Green Bay (Wis.) *Herald-Times*, thinks there is no way in which to tell when a display mold is too hot. The almost universal practice in composing rooms seems to consist of requiring the operator to lope along with slight waiting interval between casts.

Harold Johnson, Dispatch Printing Co., Columbus, O., described application of an additional mold cooling blower on a display machine to overcome stalling of the machine during slug ejection. He explained that a considerable amount of 14 pt., 18 pt. and 24 pt. display composition is required for the classified columns.

The additional blower was installed under the left side of the machine. Through 1 in. diam. copper tubing leading from the blower, the air spray is directed toward the base of the mold during slug ejection as well as while the mold is resting at normal position. The cooling air sprays from the two blowers, he said, are effective. ⊕

M-G-D Mural of Graphic Arts Greats—This mural honoring great names in the field of printing dominates one end of the board room in the new headquarters building of Chicago's Miehle-Goss-Dexter, Inc. Etched in plexiglass with a carborundum drill, the mural measures 12 ft. wide by 5 ft. high. William Caxton, first printer in the English language; Johann Gutenberg, inventor of modern printing; John Baskerville, 18th century British innovator of methods in the manufacture of ink and paper, and Giambattista Bodoni, 18th century Italian inventor of the present Bodoni type face are among the notables pictured in the mural.

Analyze Your Plant's Engraving Techniques

TECHNICIAN EXPLORES POWDERLESS AND CONVENTIONAL ETCHING METHODS

By C. HAROLD LARSSON, *Eastern Manager, Chemco Photoproducts Co., Inc.*

WHETHER the photoengraver uses conventional or powderless etching techniques, he should periodically make an analysis of his methods. This is to make sure that he is taking full advantage of the skill, experience and facts which are available to help him make consistently better engravings. The art of producing good etchings can be made easier if the etcher will set up and follow standard procedures based on known facts about the products and processes he uses in his everyday work.

Although present day methods of etching vary greatly, they have much in common in that in all cases the end result is to produce, so far as is humanly possible, the most perfect engraving. There are, of course, problems peculiar to etchers in different geographic areas due to temperature, humidity and the ever present possibility of adverse water supply conditions. In spite of these variants, there are many things etchers anywhere can do to get the most from their efforts.

Let's look first at conventional etching, and then consider powderless etching.

Conventional Etching

In conventional etching we have five (in some shops, six) major items to consider. These are etching powder, burning-in temperature, acid, metal and manpower, and in some cases, the rollup system of etching.

Present day etching powders are uniformly excellent, and there are on the market enough brands and grades to satisfy any etcher's needs. Even dragon's blood is available; but, as it is a natural resin, quality control and availability are always a problem. As etching powder is subject to humidity, you should use small amounts and change the powder often. Etching powder should be sifted periodically through a flour sifter to remove lumps and brush hairs. This procedure along with proper burning-in will avoid chipping of powder and the resulting broken lines and missing dots.

To obtain proper burn-in and avoid chipping of the etching powder, extensive tests have proved it is necessary to heat the metal to 300 deg. F. to set the powder at 225 deg. F. From 175,000 to 200,000 b.t.u.'s of gas per hr. at 4 in. water column pressure will give proper burn-in of powder in about 12 to 15 sec. Your local gas company can help you to set up these standards by checking the adequacy of your gas supply and testing your burn-in evenness and temperature with their surface pyrometer. To further help in setting up your burning-in procedure you can use a 300 deg. F. Tempilstik which will indicate whether or not the plate has been heated to 300 deg. F.

In the Chicago *Tribune* photoengraving department, Charles Patschke weighs a zinc plate to see how much of the metal has been removed during the powderless etching process. By weighing the number of plates that have been etched in one bath, he can tell whether the bath should be strengthened or replaced.

Many etchers use the method of placing a drop or drops of water on a plate and burning-in until the water boils at 212 deg. F. The fallacy in this method is that a small droplet of water will boil sooner than a large drop of water. In the latter instance, the plate may be heated to at least 400 deg. F. temperature before the water boils. This causes badly warped plates.

Recently in England there has been developed the Pictograph cold fusing cabinet which fuses powder in 30 to 60 sec. using vapor instead of heat.

Just What is Nitric Acid?

The next item to consider is Engraver's Grade nitric acid used in conventional etching. Technical grade 42 Baume nitric acid is the only acid recommended for powderless etching.

As is well known, nitric acid is mainly used in the manufacture of explosives and is usually made by oxidation of ammonia by atmospheric oxygen, or by distilling potassium nitrate (niter) or Chile saltpeter (sodium nitrate) with strong

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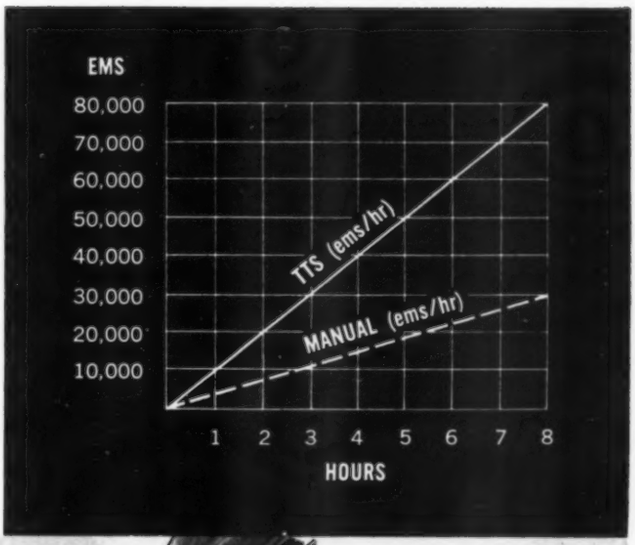

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sulphuric acid. Nitric acid contains about 76% oxygen. Engraver's grade nitric acid is technical acid with urea and other additives such as alum and citric acid. Urea keeps the acid clear and colorless. Sunlight and impurities turn nitric acid yellow. In the etching process alum precipitates lead to lead sulphate, and brightens the plate as does nitric or phosphoric acid. Some acid manufacturers use a patented additive as a brightener. Nitric acid is sold in many strengths; 38 deg., 40 deg., and 42 deg. Be. are normally used by engravers.

Don't Buy Water

When buying the weaker acid you are buying more water. For instance, 38 deg. Be. nitric acid is 56.52% acid, 43.48% water; 40 deg. Be. is 61.38% acid, 38.62% water, and 42 deg. Be. is 67.18% acid and 32.82% water. It isn't advisable to try to order stronger acid. Strong nitric acid deteriorates faster, is very dangerous to handle, and there are stringent laws regarding its handling and storage. For example, if strong nitric acid is spilled on sawdust, the mixture will burst into flame. Cellulose or cotton become nitrocellulose or guncotton when in contact with strong acid. As engravers, it would benefit all of us to know how to use this product more intelligently and more profitably.

The speed or rate of etch varies considerably with the strength of acid, temperature of the bath, purity of the acid, the addition of additives, the manner in which the solution is applied to the plate and the amount of zinc nitrate in the bath.

Conventional etchers can readily make use of information which has proved of value in powderless etching—that there is a definite way to check the strength of an acid and do something about it. There is a known relationship between Baume readings and the percentage of acid in solution, as explained previously in describing the 38 deg., 40 deg. and 42 deg. Be. nitric acids, so why not make use of this fact in the interest of standardization? A Baume hydrometer graduated by the formula Baume equals 145 (145 divided by sp. gr.) and a thermometer should be standard in every etching room. Actually, a thermometer similar to a Partlow instrument could be mounted on the conventional etcher to indicate bath temperature constantly.

With a Baume hydrometer an engraver can be sure that the new bath is of the proper strength. Tests have shown that a bath of 14% nitric acid by weight, 10.89 Be, or approx. 10% by volume gives the best etching quality when operated at 70 deg. F. As plates are etched, zinc nitrate becomes part of the bath, and then the specific gravity of the solution changes. In other words, the Baume reading rises. For every degree the Baume density rises, 1½% by weight of nitric acid should be added to the bath.

Weigh the Flat

Another method of making nitric acid additions to the conventional etching bath is to weigh the flat before and after etching and then add 75 to 83 milliliters of 42 deg. Be. Engraver's Grade nitric acid for each ounce of metal etched away. A little experimentation by the

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Toast your mats under vacuum in the completely automatic TRI-Q TOASTER for "sharper" . . . "cleaner" . . . finer quality printing! The TRI-Q TOASTER will enable you to RETAIN MAXIMUM MOLDED DEPTH . . . PROVIDE UNIFORM SHRINKAGE . . . ELIMINATE ALL BUCKLES.

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CUTS FORMING TIME IN HALF!

The Tri-Q Toaster doubles the capacity of a former because the mats require only half of the time needed in the former without pre-drying. (This also saves wear and tear on expensive formers.) With a Toaster *and* a former TWICE AS MANY mats can be processed in the same time!

get BIG SHRINKAGE with "PACKLESS" MATS!

Our experience with the Tri-Q Toaster indicates that it is practical to get ⅞ inch shrinkage on "packless" mats without delaying deadlines or increasing production costs!

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etcher will give the exact number of ml. of acid needed, and a formulated table can be made up for any given number of ounces of metal. Enough acid should be added each time to keep the conventional etching rate at 0.003 in. per min. As the etched metal is deposited in the baths as zinc nitrate, the bath will eventually reach a point where the addition of acid does not maintain the etching speed and quality. When your etching time increases to one and one-half the original time it is no longer profitable to continue adding acid. Excessive zinc nitrate and high bath temperatures have an adverse effect on the engraving resist. In fact, the effect is similar to throwing abrasive material against the resist.

You should try to operate the bath at 70 deg. F., remembering that if you don't, you must add 1% of etching time for each degree under 70 deg. F. and decrease etching time 1% for each degree over 70 deg. F. Also bear in mind, when making an etching bath, that for every 17 deg. F. the acid drops in temperature below 70 deg. F., the Baume of the acid rises 1 deg. In other words, stock acid gets stronger by 1 deg. Be. for every 17 deg. drop in temperature. This is also true with technical grade acid.

As far as engraver's metal is concerned, there is general agreement that all the manufacturers are turning out an excellent product, and it is just a matter of selecting the proper type of metal for the particular job at hand.

(Continued Next Month)

IAES Announces Plans for Spring Technical Meeting

Three hundred and fifty executives of the electrotyping and stereotyping industry are expected to attend the 32nd annual spring technical conference and exhibition of the International Assn. of Electrotypers & Stereotypers, Pittsburgh Hilton Hotel, Pittsburgh, April 17-19.

Featured at the conference will be a trade show exhibit of new equipment supplies and materials. Visits have been scheduled to the Standard Electrotype Co. plant and the new facilities of Service Electrotype Co.—both of Pittsburgh.

In addition, the program includes talks and panel discussions on original and duplicate platemaking, production operations and management problems.

PIA Trade Binders Section Plans Meeting, Mar. 17-19

Bindery gadgets, hourly rates and management problems will be discussed at the annual spring meeting of the Trade Binders Section of Printing Industry of America to be held at Statler Hilton Hotel, Detroit, Mar. 17-19.

"Budgeted Hourly Rates and Estimating—a Work Shop" is the topic of the first discussion to be held on the morning of Mar. 18. On the afternoon of that day, the general session will discuss major management problems of the 1960s.

During the last general session, on the morning of Mar. 19, "Gadgets, Gimmicks, and Gizmoes Used in Operating Trade Bindery Machinery" will be the topic of discussion.

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EQUIPMENT AND SUPPLIES

You may easily and quickly obtain additional information on the new equipment, supplies and services mentioned on these pages by completing the special Reader Service Card conveniently found in this issue.

WEB OFFSET PUBLICATION PRESS BUILT BY AMERICAN TYPE FOUNDERS

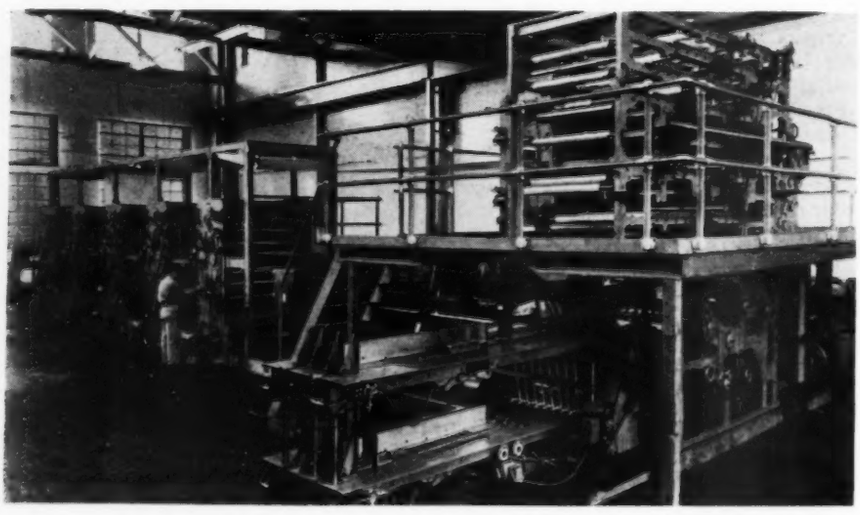
A new high speed web offset perfecting publication press has been announced by Web Offset Press Div., American Type Founders Co., Inc. The press is of the unit type construction and employs the blanket-to-blanket printing principle. A printing unit includes two plate cylinders, two blanket cylinders and two sets of inking and dampening rollers. Another feature claimed for the press is a cylinder arrangement which controls web tension between printing units to insure color register.

One model of the press, a five unit, ten color web offset press built for Standard Publishing Co. of Cincinnati was recently displayed to the industry. The press has a cylinder circumference of 34.950 in., a maximum web width of 50 in. and a reported speed of 1200 ft. per min. Featured on the unit is a new Collect and Non-Collect type folder arranged to permit many variations of black and white and color page combinations.

Sponsor states that the special ribbon folder on the press will permit several jobs to be printed, folded and delivered at the same time. The folder will slit the web or webs (maximum of two) into two, three or four ribbons. The ribbons are gathered, cut and folded into complete signatures. The webs may be perforated for workbooks and similar jobs or pasted so that a secondary stitching operation can be eliminated.

In addition to the main press folder, the press features a special Former Folder section which delivers either fixed-size tabloid or double digest type signatures. Either of these signatures may be produced by bringing the ribbons down over the former. The folded books are then delivered on the main folder delivery tapes to the bundlers.

Another feature of the press is a plate cylinder cocking device. The device is said to allow re-alignment of a plate cylinder while the press is running. The press is also equipped with a Formsprag clutch on the ink fountain roller that replaces ratchet and pawl devices. Circle No. 283 on Reader Service Card.



ATF has announced the development of a unit type web offset publication press. Employing the perfecting printing concept, the press operates at a reported speed of 1200 ft. per min.

LITHO 2 STEP ROLLER WASH

The Rycoline Solvent Co. has announced development of the 2 Step Wash Up for lithographic presses. It is claimed it will revitalize glazed inking rollers. The solvents are said to be non-toxic and relatively odor free. Circle No. 287 on Reader Service Card.

ATTACHMENT CONTROLS SLITTING

An attachment which controls slitting has been developed for the Perf-A-Matic automatic feed rotary perforator by Pierce Specialized Equipment Co. The attachment consists of a stationary cutting blade in an adjustable holder which is positioned over a driven roller and set for the slitting depth desired. The blade is a popular brand of razor blade which may be replaced easily. Applications of the attachment include making a tie-less type of perforation on card stock and cutting through the backing only on individual layers of laminated material. Circle No. 277 on Reader Service Card.

ELECTRIC PROOF PRESS INTRODUCED BY ATLANTIC NUMBERING MACHINE

Atlantic Numbering Machine Co., Inc., has announced the model SPA electric proof press, imported from West Germany. The machine will be introduced in the U. S. at the Westprint '61 exhibit in Los Angeles, Mar. 23-26.

The press may be used for proving full size Linotype forms with or without a galley on any weight stock. Printing height may be varied ⅛ in. One feature of the press is a reverse switch which is said to ease double rolling heavy forms. Three form sizes are available—9¼ in. by 28 in., 17¼ in. by 28 in. and 21½ in. by 28 in. All are equipped with a washup unit. Circle No. 273 on Reader Service Card.

COMPACT VISUAL CONTROL BOARD

A compact size visual control board called the Rol-a-chart, Jr., has been developed by Conley, Baltzer & Steward. The device consists of a stationary index and a transparent, plastic sleeve that moves across a fixed grid. Entries are made with a marking pencil and erased with a wiping cloth.

Rol-a-chart, Jr., is 21½ in., wide, 14 in. high and weighs 3 lbs. It has index space for 40 vertical entries and 154 horizontal entries. The board can be hung on the wall or used at a desk. Circle No. 266 on Reader Service Card.

TOXIC SOLVENT DISPENSING CAN

A toxic solvent dispensing can is being marketed by the Protectoseal Company which prevents contact with liquids used in cleaning operations. The half pint can has a self sealing well which also prevents solvent vapors from escaping. Designed for use with a small brush or swab, the can might be used for cleaning numbering machine parts and other small accessories. Circle No. 288 on Reader Service Card.

Kodak announces

5 new continuous-tone films

All on Estar Base

KODAK SEPARATION NEGATIVE FILM, TYPE 1, ESTAR BASE. This is a *new*, fine-grain, pan film of moderately high speed for low- to medium-contrast work, such as transparency separations, and for making masks. Closely matched color gammas. Harder emulsion means shorter drying times. Suitable retouching surface. On 7-mil Estar Base for dimensional stability and kink resistance.

KODAK SEPARATION NEGATIVE FILM, TYPE 2, ESTAR BASE. This is a *new*, fine-grain, rapid-drying, suitable-speed pan film of high contrast, on stable 7-mil Estar Base. For making color-separation negatives for the positive masking and camera-back masking methods. Also for making continuous-tone positives from color negatives. Surface made for retouching. Well-matched color gammas.

KODAK COMMERCIAL FILM (ESTAR BASE). A rapid-drying blue-sensitive film of medium speed—capable of giving moderately high contrast—coated on stable 7-mil Estar Base. For making negatives in copying continuous-tone subjects, as in photogravure, and for other work not requiring green or red sensitivity. Special emulsion surface facilitates retouching.

KODAK 33 POSITIVE FILM (ESTAR BASE) is a new, fine-grain, rapid-drying, blue-sensitive film of moderately high speed and medium contrast, on stable 7-mil Estar Base. Chiefly for making continuous-tone positives for photogravure and photoengraving color work. Its shorter toe helps preserve good highlight gradation in positives. Excellent also for masks in positive masking, and for the pre-masks in two-stage masking, when a 7-mil support is desired.

KODAK BLUE SENSITIVE MASKING FILM (ESTAR BASE). Photographically similar to Kodak 33 Positive Film (Estar Base), but on the thinner 4-mil Estar Base. Well suited for the overlay masks used in photogravure for color correction, for boosters, and for drop-out masks.

Now—designed specifically for your use—the complete line of high-quality emulsions, all on Estar Base. Your Kodak graphic reproduction dealer now has all the films pictured. Your Kodak Tech Rep will explain and demonstrate them if you ask him.

Text for this advertisement was set photographically.

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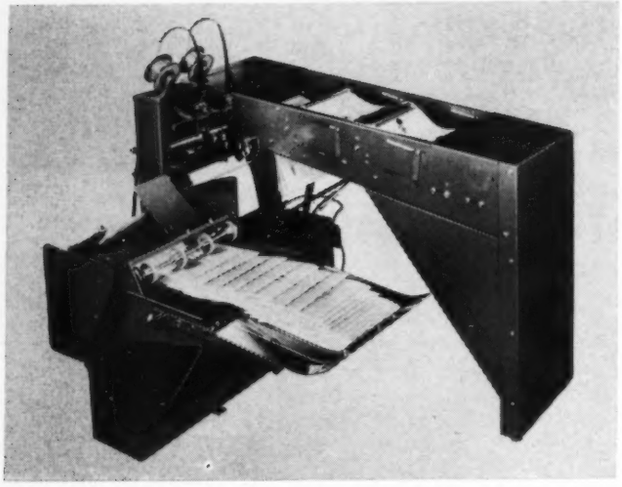
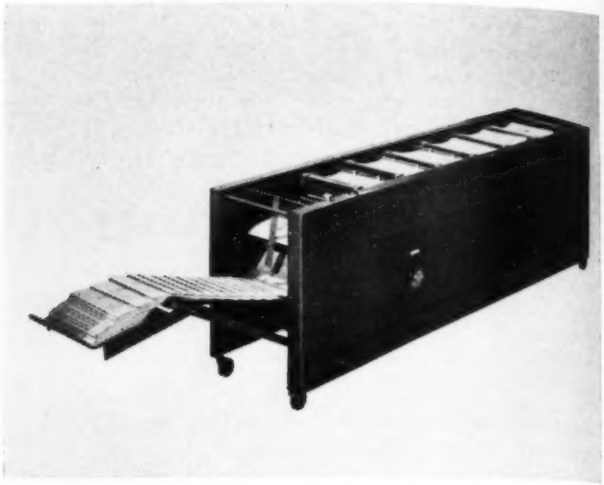


Rosback has announced production of an automatic feeder for the Auto-Stitcher. It is available in single and two station models.



This mechanical six station signature inserter, developed by F. P. Rosback Co., will reportedly produce 4100 books per hr.

SIGNATURE INSERTER, AUTOMATIC FEEDER DEVELOPED BY F. P. ROSBACK CO.

Development of an automatic feeder for the Rosback Auto-Stitcher and of a six station signature inserter has been announced by F. P. Rosback Co.

Mechanical in nature, the feeder is available in single and two station units. The single station model will feed a single signature or a complete booklet of pre-inserted signatures onto the saddle of the Auto-Stitcher. The two station model will insert a signature or signatures into a cover and feed it onto the Auto-Stitcher saddle. Signatures ranging in size from 5 in. by 5 in. to 10 in. by 14 in. can be handled on the feeder.

The mechanical six station signature inserter will handle signatures from 3 in. by 5 in. to 10 in. by 14 in. Features of the unit include pick-up fingers that open signatures to the center of a booklet. A carrier bar places the inside signature into the center of the next signature. Reportedly, double pickup is eliminated by this method. One feature of the machine is an adjustable detector that stops the inserter if a booklet is not complete.

Signatures measuring from 3 in. by 5 in. to 10 in. by 14 in. can be handled. The inserter is also available in a five station size that will insert signatures up to 12 in. by 18 in., in size. Circle No. 269 on Reader Service Card.

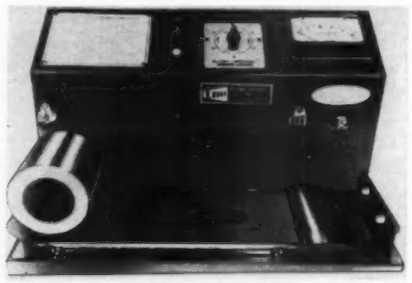
ATF OFFERS DISPOSABLE DAMPENERS FOR OFFSET DUPLICATORS

The introduction of a line of offset duplicator disposable dampeners, which is said to eliminate the procedure of fitting new covers onto rollers, has been announced by American Type Founders Co.

The dampeners consist of a set of rollers, complete with core and rollers. When covers need replacement, the operator discards the complete unit set and replaces it with a new one. Other reported benefits of the dampeners are the elimination of roller seams, loose or twisted covers, low ends or mourning bands, and problems of color changes. Circle No. 253 on Reader Service Card.

TESTER EVALUATES PAPER SURFACES, HELPS FORECAST PRINTABILITY

The Vanceometer tester is designed to evaluate in numerical terms the absorption rate of paper surfaces and to forecast printability. According to Testing Machines, Inc, the 20 sec. Vanceometer



test forecasts the absorption factor of the paper or paperboard before going to press. The pressman is then able to make necessary adjustments through the run, according to the Vanceometer readings of the various skids. The tester also measures the rate of absorption of such materials as adhesives, starches, inks, etc. Circle No. 252 on Reader Service Card.

POLYCHROME ANNOUNCES LAYOUT RULER

A steel layout ruler designed especially for centering purposes has been announced by Polychrome Corporation. Reportedly, the ruler saves time and labor and increases accuracy in preparing mechanicals and offset flats. It is recommended for use by offset strippers, photographers and artists. In addition to its centering scale, the ruler features a regular 1 in. through 24 in. scale in graduations of 1/16 in. Circle No. 258 on Reader Service Card.

PHOTOGRAPHIC PROOFING PAPER

Anken Chemical and Film Corp. has developed a photographic proofing paper. Anko-Graphic is designed to be handled under normal room light. Paper is claimed to have a high contrast emulsion which results in clean, sharp definition. Reverse side of sheet is said to resist penetration of paste-up adhesives.

Paper can be developed in either A and B or D-72 developers. Anko-Graphic is available in eight standard cut sheet sizes and in rolls from 20 in. by 50 ft. to 42 in. by 150 ft. Special sizes available on request. Circle No. 289 on Reader Service Card.

ONE TIME CARBON NOW AVAILABLE IN SPOT OR AREA PRINTED ROLLS

Marginally punched one time carbon paper in rolls for snapout and continuous carbon forms is being manufactured by American Carbon Paper Co. Rolls are available either spot or area printed. Carbon paper length is said to be held to a tolerance of + 1/16 in. to 3/16 in. in 14 ft. lengths for printing cylinder sizes of 14 in., 17 in. and 22 in. The carbon paper is available in either blue or black. Circle No. 290 on Reader Service Card.

HALVERSON LOOSE SHEET COLLATOR

Halverson Products Co. has announced the availability of its new automatic, loose sheet collator. The collator, which is an eight station model, reportedly collates eight sheets per sec., 480 sheets per min., and 28,800 sheets per hr. Criss-crossed

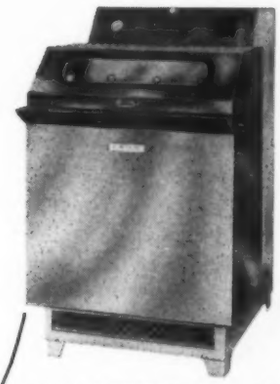
sets, jogged and counted in the tray, are delivered by the unit. Circle No. 273 on Reader Service Card.

ONLY Master PRODUCES PLATE MAKING EQUIPMENT FOR ALL THE REVOLUTIONARY LETTERPRESS-RELIEF PROCESSES

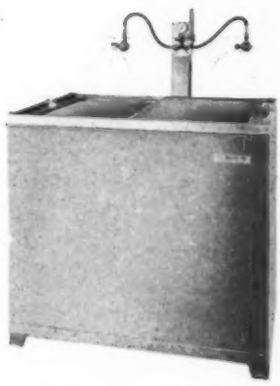
The introduction of DYCRIL* by DuPont provides the Graphic Arts Industry with a new tool for expanding the relief plate market. This plastic material possesses inherent qualities and possibilities not obtainable with other materials. Never before has the industry had the possibility of such a diversified selection of materials and processes from which to choose the one best tailored for the job requirements.

Abreast with progress, MASTER is proud to offer rugged and serviceable quality equipment for the production of DYCRIL* relief plates.

DYCRIL*



FLAT WASHOUT UNIT ▲



CONDITIONING CABINET ▲

Only **MASTER** produces plate making equipment for all of the following processes:

- DYCRIL* PLATES
- POWDERLESS ZINC PLATES
- WRAP-AROUND PLATES
- POWDERLESS MAGNESIUM PLATES
- POWDERLESS COPPER PLATES
- PRECURVED PLATES

for detailed information on any of the above items please contact your supplier or write to MASTER SALES & SERVICE CORP., Wyncote, Pa.

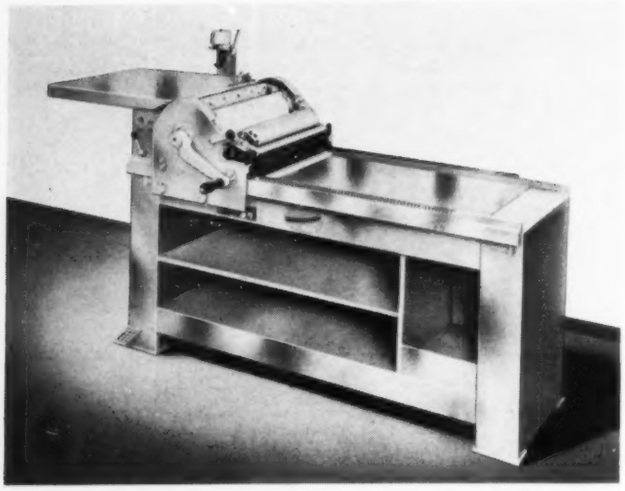
We welcome your visitation to our laboratory showrooms for demonstration of any of the above processes. Please contact us for appointments in advance.

DYCRIL* FLAT VACUUM EXPOSURE UNIT and ARC LAMP ▲

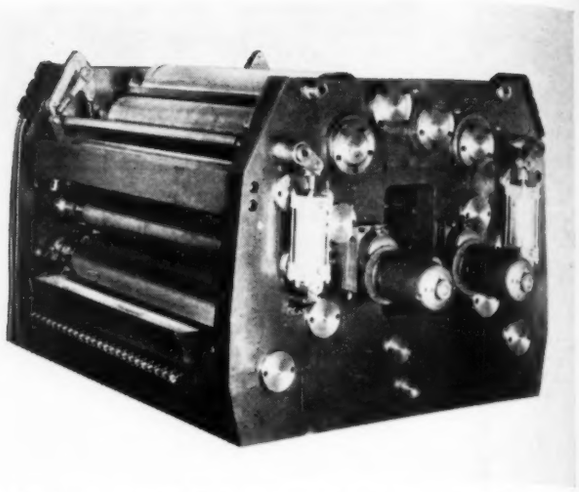
*Du Pont's trademark for its photopolymer printing plate.

MASTER SALES & SERVICE CORP. WYNCOTE, PA.

For More Information Circle 113 on Reader Service Card



Vandercook & Sons has announced the development of a new reproduction proof press for handling forms up to 19 in. by 26 in.



The Litho-Master web offset press has been announced by R. Hoe & Co. It is designed for printing small dailies and weeklies.

VANDERCOOK REPRO PROOF PRESS HANDLES FORMS TO 19 IN. BY 26 IN.

A reproduction proof press that handles forms or plates up to the size of 19 in. by 26 in. has been developed by Vandercook & Sons, Inc. Known as the Vandercook SP20, the press is described as a simplified version of the Vandercook Universal III proof press.

The press features an inking system similar to that of the Universal III, which consists of two 3 in. form rollers, combined with a steel vibrator, steel rider and motor driven ink drum. Reportedly, the installation and adjustment of the form rollers is simply accomplished. Each roller is a unit, including ball bearings and height adjusting mechanism. According to the manufacturer, once the form rollers are adjusted to proper printing height, they need not again be adjusted when changed.

Among the other features of the press is an automatic washup device. Maximum sheet capacity of the SP20 is 19½ in. by 20 in. The unit requires a floor space of 3 ft. 2 in. by 7 ft. 4 in. Circle No. 285 on Reader Service Card.

LINEAL MEASURING DEVICE FOR PAPER

Standard Instrument Corp. has announced the availability of a lineal measuring device with a photoelectric sensor. Known as the Footage Counter, the product is recommended for measurement and control of paper in yards, feet or inches. One advantage claimed for the unit is that it is accompanied by no load drag.

Features of the Footage Counter include pre-set counters, which are said to operate at high production speeds. Multiple, predetermined settings may be selected as desired for sequential operation. For example, the manufacturer states: In a 10,000 yd. cycle actuated by a multi-preset counter, electronic circuits will sound a warning bell at 9500 yds.; will slow the machine at 9900 yds., and will stop the machine at the 10,000 yd. point.

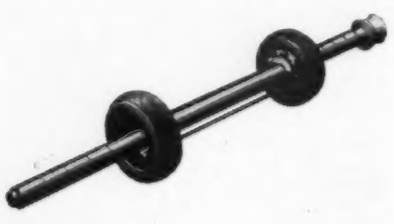
Reportedly, the counter also may be used for cut off, marking and recording of production vs. elapsed time. Models are available with magnetically actuated pickups for applications where dust or lint interferes with photoelectric operations. Circle No. 276 on Reader Service Card.

SEALING FOR STEEL STRAPPING

Micrograp, a sealing for steel strapping, has been announced by Signode Steel Strapping Co. The product features a high friction mastic compound which coats the inside surface in the area within which the crimping action occurs. When the crimps are applied, the mastic compound bites through strap coating to provide a frictional bond between the two metal surfaces. Micrograp is recommended for use with only painted, painted and waxed, or waxed Magnus and Heavy Duty strapping in widths of 1¼ in. Circle No. 264 on Reader Service Card.

PAPER ROLL MANDREL EQUIPPED WITH EXPANDING RUBBER TIRES

A pneumatic mandrel which grips a winding paper roll along its length by means of inflatable rubber tires has been introduced by Perfection Tool and Mfg., Inc., for material wind and rewind operations. The tires are connected in series by hose



to a source of air pressure at one end. They are deflated when the mandrel is inserted into a roll core of paper, paperboard, plastic film, metal, etc. The tires can be moved along the shaft to adjust for core length and are held in place by screws.

Size range is for 8 to 24 in. core inside diameter. Length is furnished according to specification. Circle No. 261 on Reader Service Card.

LITHO-MASTER WEB OFFSET PRESS FOR SMALL WEEKLIES AND DAILIES

The Litho-Master, a unit type web offset press designed for printing small dailies and weeklies as well as commercial printing applications, has been announced by R. Hoe & Co., Inc. Developed jointly by Hoe and Aller Press, Ltd., of Copenhagen, Denmark, the press has been tested and adapted to American standards and production requirements. It will be built in Hoe's New York plant.

A maximum of eight of the press units may be combined with one folder to print 32 standard or 64 tabloid size pages. Speed of the press is said to be 20,000 i.p.h. Reportedly, a color cylinder may be added to any of the press units for obtaining spot color without sacrificing black and white page capacity.

Paper rolls with diameters of 40 in. may be accommodated by the roll stands. The press features a 22¾ in. page cutoff and a web width of 29 in. to 36 in. It is a bearer-to-bearer press, and features the Aller blanket cylinder technique. Reportedly, paper ranging from 22½ lb. to 70 lb. offset stock may be used on the press. The plate cylinder is undercut 0.014 in. which allows the use of all currently available conventional offset plate materials.

Press units may be arranged on floor level or stacked two high. No pit is necessary. Circle No. 282 on Reader Service Card.

SINGLE SOLUTION DEVELOPER FOR LITHO TYPE EMULSIONS

A single solution liquid developer for litho type emulsions has been introduced by Chemco Photoproducts Co., Inc. Known as Powerlith Developer Mono-Concentrate, the developer eliminates separate formulations from the photo chemical process.

The sponsor reports that no metering is required for restoration of the tray solution. In one technique established as the norm by Chemco after field testing, one-quarter as much Mono-Concentrate as the original dilution is added to the tray whenever development time increases by

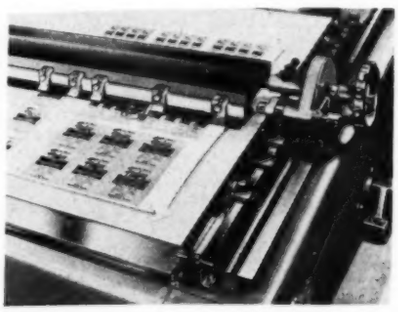
15 sec. In this way, states the sponsor, full strength solution is obtained with 75% less developer concentrate than preparation of a completely new batch would require.

It is stated that when a 3-to-1 water to concentrate solution is used, full development time is reached in 90 sec. at 68 deg. F. and in 120 sec. at 60 deg. F. Optimum economy and quality results with solutions used at a tray depth of 1½ in. to 2 in., with the deeper levels delivering longest tray life.

The concentrate is available in 5 gal. sizes which yield up to 25 gal. of tray solution. Circle No. 286 on Reader Card.

nuARC DEVELOPS STRIPPING TABLE WITH A TWO-WAY REGISTER BAR

A combination light table, stripping table and register and repeat table has been announced by nuArc Company, Inc. One of the features of the table is a two-way register bar on a moving straight edge. Adjustable stops on the bar allow the



operator to line up vertically; while adjustable stops on the side bar allow him to line-up horizontally.

The table is of all metal construction. The top tilts from 0 deg. to 15 deg. Circle No. 265 on Reader Service Card.

KODAK ANNOUNCES THREE PRODUCTS FOR PHOTOTYPESETTING

Film, paper and developer for phototypesetting processing have been introduced by Eastman Kodak Co. Kodak Phototypesetting Film (SO-286 Film) is a high-contrast, ortho-sensitive film intended for use in Photon machines. Reportedly, making corrections is simplified by the film's 5 mil acetate base which eases the separation of images by scoring and bending. Sponsor states the film can be examined under a Series 1 Safelight Filter during development.

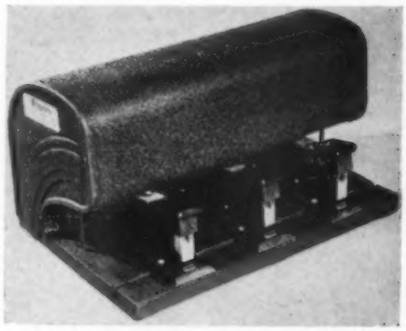
The new film is supplied in eight roll sizes: 155 mm. by 50 ft., 180 mm. by 50 ft., 205 mm. by 50 ft., 205 mm. by 100 ft., 254 mm. by 50 ft., 4 in. by 50 ft., 6 in. by 50 ft., and 8 in. by 50 ft. All these sizes are Specification 809, emulsion side in on a 2 in. inside diam. paperboard core, perforated on one edge, for the Photon machine.

Kodak Phototypesetting Paper, previously known as Kina 1511 Paper, has a high-contrast, ortho-sensitive emulsion comparable to that of the new film. It may also be handled under a Series 1 Safelight Filter. The paper is available in four sizes: 6 in. by 100 ft., 8 in. by 100 ft., 10 in. by 100 ft., and 10 in. by 350 ft. These sizes are Specification 28, emulsion side in on a 2 in. inside diam. paperboard core, for the Photon machine.

Formulated specifically for use with the new film and paper is Kodak Phototypesetting Developer. The developer is available in package form for making 5 gal. quantity. It will also be known as PS 469. Circle No. 256 on Reader Service Card.

MULTI-HEADED PNEUMATIC STAPLER

A pneumatic, three-headed stapler designed for industrial and commercial use has been announced by Staplex Company. Called the Staplex Model SAD-350, the machine is equipped with a three way air switch for either foot, knee or hand operation. The stapling heads are



adjustable. Standard leg-type, ¼ in. staples are used in the machine. It measures 10 in. deep, 8 in. high and 16 in. wide. Circle No. 272 on Reader Card.

In the Southwest, Don Malcolm demonstrates the Superiority of *Burgess No-Pac Mats*

Don Malcolm (left) with Robert Jealouse, Stereotype Superintendent of The Dallas Morning News.

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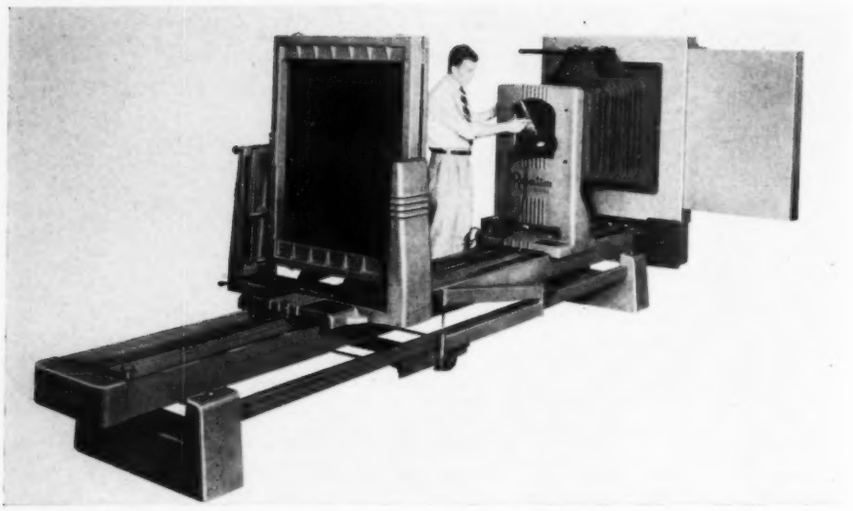


Robertson Photo-mechanix, Inc., has developed a 28 in. by 28 in. process camera. Known as the Model 481, the range is 3X enlargement and 7X reduction with a 19 in. lens.

28 IN. BY 28 IN. CAMERA DEVELOPED BY ROBERTSON PHOTO-MECHANIX

A new process camera, the Model 481, has been announced by Robertson Photo-mechanix, Inc. Designated as a 28 in. by 28 in. camera, Model 481 features a range of 3X enlargement and 7X reduction with a 19 in. lens. Films and contact screens up to 28 in. square can be accommodated by the vacuum film holder. Making bump shots is said to be facilitated by the Select-o-Zone rotary selector valve with a dial calibrated to match all popular film sizes.

Glass screens up to 26 in. by 32 in. rectangular and 31 in. circular can be accommodated by the screen mechanism. Either single or double side screen elimination is available. A glass covered copyboard measuring 34 in. by 44 in. is standard equipment on the Model 481. Circle No. 267 on Reader Service Card.

DEVELOPS INK FOUNTAIN AGITATOR FOR MAGNETIC INK ENCODING

Development of an ink fountain agitator to aid printers in meeting the quality requirements of magnetic ink encoding has been announced by Baldwin-Gegenheimer Corp. The fountain may be used on the ATF Chief 15, Davidson, A. B. Dick, Multilith, Photostat and other small presses. Much of the magnetic ink encoding is done on small sheetfed offset duplicating machines. One advantage claimed for the agitator is that it maintains the required dispersion of ferrous particles, without which encoding standards cannot be met. Circle No. 262 on Reader Service Card.

KODAK ANNOUNCES FIVE FILMS AND FOUR PLATES FOR GRAPHIC ARTS

Five new continuous tone films on Estar base and four improved plates which are counterparts of the films have been announced by Eastman Kodak Co. Descriptions of the new products follow:

Kodak separation negative film, Type 1, Estar base, (.0077 in.), is specifically designed for making separations from color transparencies. Sponsor states that production time is saved by the film's fast drying properties.

Kodak separation negative film Type 2, Estar base, is designed for work with reflection copy and is suited for use in the camera-back masking technique. Type 2, similar to Type 1 but of higher contrast, also is recommended for positive masking.

The new separation negative Type 1 and separation negative Type 2 films replace the earlier Kodak separation negative PB flim.

Kodak commercial film (Estar base) has emulsion characteristics similar to those of Kodak commercial film, combined with the size-holding properties of 7-mil Estar base. The special emulsion surface of the blue-sensitive film facilitates retouching; while its fast-drying properties enable it to be given to the retoucher quickly.

Kodak 33 positive film (Estar base) is the positive-making counterpart of the new commercial film. Its characteristic curve makes this film suitable for making positive masks and pre-masks for two stage masking when a 7-mil support is desired.

Kodak blue sensitive masking film (Estar base) bears the same emulsion as Kodak 33 positive film (Estar base), but on the thinner 4-mil support. It is designed for sandwich masking processes in gravure work—such as color correction, boosters, and drop-out masks.

The improved plates are comparable photographically to certain of the new films, and are reportedly improved in performance over the current plates they replace.

Kodak separation negative plate, Type 1 (Improved) is similar to Kodak separation negative film, Type 1, Estar base, in speed, contrast, color sensitivity, and keeping stability.

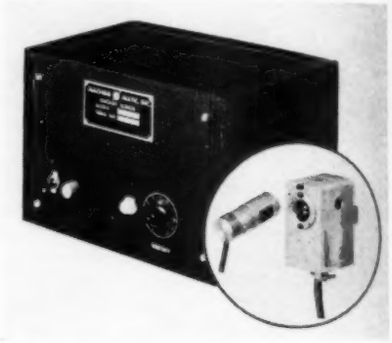
The new Kodak magenta mask plate is designed specifically, as its name indicates, for use in the magenta masking technique.

Kodak separation negative plate, Type 2, is comparable in characteristics and applications to separation negative film, Type 2, Estar base. It will replace the Kodak panchromatic plate.

Kodak 33 positive plate is the glass base counterpart of the new Kodak 33 positive film (Estar base) and will replace the current Kodak 33 plate. Circle No. 270 on Reader Service Card.

ELECTRONIC WEB BREAK DETECTOR SCANS WEB AT THREE POINTS

Machine-O-Matic, Inc., announces the development of an electronic web break detector that simultaneously scans the paper web on a press at three different points. The device signals when a break or peel occurs and cuts off power automatically on the press. This completely electronic detector is said to have no mechanical devices that touch or mark the moving web. It operates at any press speed by means of photoelectric scanning eyes which can be either horizontally or vertically spaced along the web. Circle No. 250 on Reader Service Card.

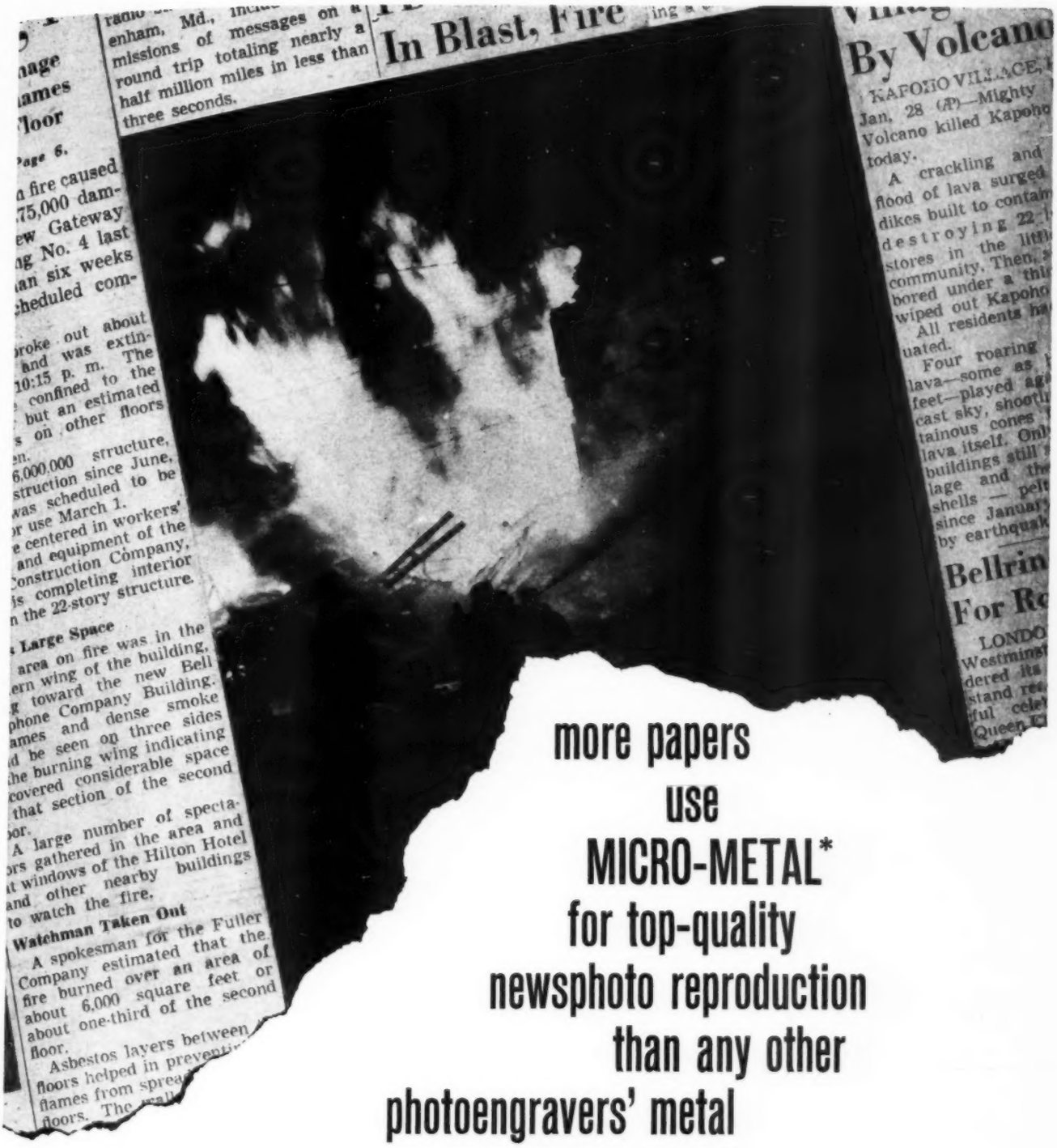


SOLOTONE RETOUCHING LINE EXPANDED

Three new tonal values have been added to the Solotone line of black and gray sheets for retouching by Bourges Color Corp. Values of 20%, 40% and 60% have been added to the line which already included values of 10%, 30%, 50%, and 70% and 100%. Available in overlay and adhesive type sheets, Solotone sheets feature a removable color coating. Solotone is manufactured in the following sizes: 10 in. by 12½ in., 12½ in. by 20 in. and 20 in. by 25 in. Circle No. 263 on Reader Service Card.

PLASTIC-BACK ONE TIME CARBON

The Carbon Web Corp. has announced a new plastic-back one time carbon paper for business forms printers using flat one time carbon. Trademarked Colla-Fast, the new carbon is reported to increase collating and jogging speed, eliminate sticking and prevent curling under any temperature. Circle No. 271 on Reader Card.



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DIAPHRAGM TYPE POWER UNIT GUIDES NARROW WEBS OF PAPER

A vacuum operated, diaphragm type power unit for intermediate guiding of narrow webs of paper, tag stock or lightweight board has been announced by Fife Manufacturing Co., Inc. Known as the Model D-10A, the unit is recommended for use with webfed presses, business forms presses, bag machines and coaters. Maximum web width that can be handled on the unit is 24 in.

The equipment can be installed in a free web span between the unwind and the first printing unit for guiding the web into the first printing unit. In cases where the web span is not available, it is necessary to reroute the web path by relocating some of the idler rollers. Circle No. 278 on Reader Service Card.

CARBONIZED CONVENTION FORM SAVES NAME, ADDRESS COPYING

Transkrit Corporation has introduced a carbonized convention form which eliminates copying names and addresses of business prospects. The form is produced by a hot wax carbonizing method which

carbonizes specified areas without interleaving.

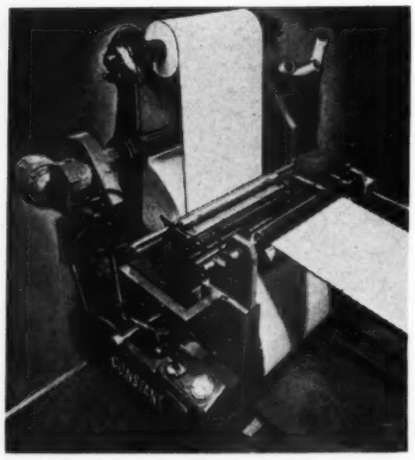
The top sheet of the form is the convention label which can be used to mail product literature to a prospect. The back of the label is carbonized so that the name and address of the prospect is printed on the second sheet, which has space for requesting information and recording the name and address of a printer or stationer. The third sheet is a duplicate of the second sheet and may be filed or sent to the printer or stationer for follow-up. Circle No. 291 on Reader Service Card.

AUTOMATIC FLYING PASTER DESIGNED FOR MOST SIZES OF ROTARY PRESSES

An automatic flying paster which reportedly may be used with most rotary presses has been announced by Acme Machinery Div. Known as the Constant Flying Paster, the unit may be used to splice paper rolls while the press is running at full speed.

The paster is built with a hydrostatic braking system and monometer, adjusable for various types of paper. Tension is independent of either the diameter of the roll or speed.

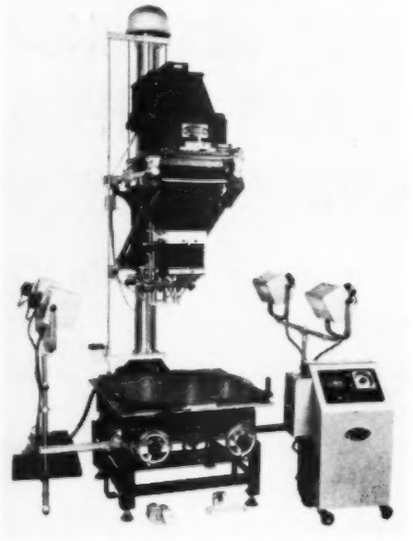
According to the sponsor, the operator starts the roll of the unit when the diameter of the roll is reduced from 40 in. to 18 in. A swing arm is than activated. The arm moves the unwinding roll to the



upper position, permitting the lower shaft to be loaded and prepared for splicing. The operator engages the lever of the paster when there is less than 15 ft. of paper left on the unwinding roll. The lever releases a "magic bullet" which hits the trigger. By the action of the trigger, the full roll is positioned with less than ¾ of a revolution of the web, and the two webs are joined by the desired splice, with butt or overlap. The unwound web is severed so that the full web continues in its place without interruption or tension change. Circle No. 284 on Reader Service Card.

DEVELOPS PROCESS COLOR CAMERA FOR COPYING, ENLARGING, REDUCING

J. G. Saltzman, Inc., has announced a new Caesar-Saltzman process color camera for photomechanical reproduction. Featuring the Ascorlux pulsed xenon light source, the camera is recommended for halftone projections, continuous tones, enlargements, reductions, copying and masking. It handles reflection copy in sizes from 40 in. by 50 in. to 8 in. by 10 in., reductions to 35 mm, separation enlarge-



ments from 35 mm and halftones up to 20 in. by 24 in.

Another feature of the unit is a secondary projection camera with negative holder in register. The secondary camera handles transparencies or negatives in sizes ranging from 35 mm to 4 in. by 5 in. Circle No. 274 on Reader Service Card.

COMPOUND CLEANS AND PREVENTS RUST

A conditioning compound that is said to loosen bound parts, acts as a cleaner and preserves metal, has been introduced by Falcon Corporation. Called Calfonex Formula G-A, the compound may be used to remove both water and ink from offset plates. Also, the product is recommended for loosening tight fitting and bound ejector wheels. It may be used as a cleaner and rust preventative for numbering machines, composing sticks, calipers, stock guides, motors and metals. Circle No. 268 on Reader Service Card.

STORAGE CABINETS AVAILABLE FOR LARGE OFFSET PRESS MATERIALS

Cabinets for storing materials in large offset press sizes have been announced by Foster Manufacturing Co. Available in three sizes, the cabinets are recommended for storing art, negatives, proofs, flats and other re-run materials. Inside drawer meas-

urements are 54 in. by 42 in., 64 in. by 50 in. and 82 in. by 62 in.; drawer height is 2¼ in. The cabinets are offered in units of five drawers. Units of 10 and 15 drawers are available with a base. Circle No. 275 on Reader Service Card.

nuARC VACUUM FRAMES

Two vacuum frame units for offset plates measuring up to 30 in. by 40 in. are available from nuArc Company, Inc. One model has a metal floor stand and the other is a table top frame with no stand. The units are available with or without a vacuum pump. Circle No. 281 on Reader Service Card.

COLOR MEASURING INSTRUMENT

An instrument for measuring color of a test sample against that of a standard has been introduced by Manufacturers Engineering & Equipment Corp. Measurement with the Colormaster Differential Colorimeter is based on the tri-stimulus coordinate system. Utilizing three filters, red, green and blue, instrument is designed to handle reflectance or transmission readings. Instrument is said to have application in the color measurement of ink, plastics and paper.

Colorimeter is 14 in. wide, 18¾ in. deep and 7 in. high. It weighs 40 lbs. and operates on 95-125 V. with power of 65 W. Circle No. 292 on Reader Service Card.

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SAVES TIME AND TROUBLE on all line casting machine molds, metal pump and plunger shafts, all circular saw blades and tables, press rollers, conveyors, pulleys, valves...and anywhere you want instant lubrication on hot or cold metals!

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12 ounce Spray Can .....$2.25 ea., $2.00 ea. in dozen lots
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For More Information Circle 55 on Reader Service Card

SINGLE PHOTOTYPESETTING MACHINE FOR NEWSPAPER AD COMPOSITION

A prototype of a new phototypesetter, which combines keyboard, exposure and makeup units in a single machine, is being completed by Don McCray. Designated the Megatype, the machine is said to be designed especially for newspaper advertising composition.

The keyboard unit consists of an electric typewriter equipped with supplementary keys providing 38 pi characters in addition to the 88 typewriter keys. This permits each font to contain up to 126 characters. Four fonts are always in exposing position, the combination of individual fonts being changed by the operator as desired.

The original ad layout is placed in the composing unit and by means of movable guides, the operator spots each line exactly where it is indicated in the layout. Exposing of one line is concurrent with the typing of the next. The completed ad, with text and display type in position, is ready for development about 1 min. after the last line is typed. Exposing speed is equal to typing speed; thus production is said to be continuous.

To allow for the exposing of one line while the next is being typed, two memory storage systems are used. They are self-clearing after each exposing cycle. There is also means for testing a line, without exposing, to allow for justifying, sizing and positioning.

As the operator types a line, electronic encoders store the character selection and its width in one of the memory systems. A visual guide simultaneously records the accumulated widths of characters and word spaces separately. The operator observes the visual scales while he pulls a justifying lever to justify by word spaces, character spacing or both. Condensed and extended, or light and bold type faces can be combined in any manner in a single line with no computing of units by the operator.

The Megatype machine is about 4 ft. by 5 ft., desk high and has the composing unit mounted vertically behind the keyboard. Type sizes range from 6 pts. to 144 pts., with 16 in. max. line length. The film carrier takes standard sheet film or paper from 8 in. by 10 in. to 18 in. by 24 in.

The machine uses a 30 units to 1¼ ems system which is said to provide letter-fitting equal to hand composition. Any spacing normally used in hand composition, including letterspacing, or variable word spaces, can be duplicated on the Megatype. Each of the 30 spacing units can be used in a manner similar to the tapered spacebands on a linecasting machine. Manufacturer states standard 17 sizes of metal type faces can be matched exactly, with the 26 additional in-between sizes providing a total of 43 sizes. Centering or flush right composition is a single lever operation. Circle No. 260 on Reader Service Card.

KODALITH ROYAL ORTHO EMULSION IS AVAILABLE ON PLATES

High-speed Kodalith Royal Ortho emulsion, introduced recently on an Estar Base film, has been made available on plates by Eastman Kodak Co. The emulsion is designed particularly for making halftones from color separations.

The new plate will replace the Kodaline Contrast Process Ortho Plate in Kodak's Graphic Arts line and is said to provide high speed, development latitude, fine dot-etching characteristics and good size-holding base. Reportedly, the new plate provides better physical hardness and better quality soft dots for the Dultgen process than does the plate it replaces. The new plate is recommended for gravure work and is said to permit shorter mask sandwich exposure times. Circle No. 257 on Reader Service Card.

STATIC-FREE HOT MOLDING PLASTIC

Tenak Products Co.'s Tenamold hot molding plastic sheet is now said to be static-free. Tenamold is used in production of electrotypes. According to the the manufacturer, the molding medium will not collect dust and lint due to static electricity. Wiping and re-wiping to clean the sheets prior to molding is unnecessary. Tenamold is available in three standard thicknesses—0.030 in., 0.035 in. and 0.040 in. A thickness of 0.050 in. is available on special order. Circle No. 293 on Reader Service Card.

Only Prime Mats

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All Beveridge mats are manufactured under strictest quality control—to assure users prime quality.

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BEVERIDGE AUTO-PAK

Outstanding one-piece packless mats—are molded under the same pressure as standard mats—retain 0.030 to 0.035 space from 0.040 form depth.

BEVERIDGE HIGH SPEED

A high quality mat for general work, capable of multiple casting—highly compressible, easy to mold, fast drying.

BEVERIDGE MULTI-CAST

A Favorite for Automatic Equipment—highly compressible, easy to mold, fast drying.

FOR THE SYNDICATE FIELD

BEVERIDGE "RED" CONTRAST

Red and white contrast makes it the market's most readable mat—best available for hot baked work—crisp, flawless reproductions—unlimited casts, flat or curved—low pressure molding—dimensional stability for R. O. P. color work.

BEVERIDGE "500" SYNDICATE

A strong low density almost indestructible mat—excellent reproduction qualities—for flat casting. Available in white, ivory and orange.

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PRINTING INDUSTRY PATENTS

Covering patents issued November 1, 8, 15, 22 and 29.

All new patents for the printing industry are reported exclusively for PRINTING PRODUCTION by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. PRINTING PRODUCTION is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room:

MEANS FOR TYPE COMPOSITION

Type composing machines of the type described in patents 2,787,199 and 2,790,362 have been modified to improve a device upon which a makeup sheet may be laid. The operator may then set the type to accommodate cuts, provide special marginal effects, and to accomplish any other similar arrangement of the line margins. No. 2,958,270 by Rene A. Higonnet and Louis M. Moyroud, assignors to Graphic Arts Research Foundation, Inc.

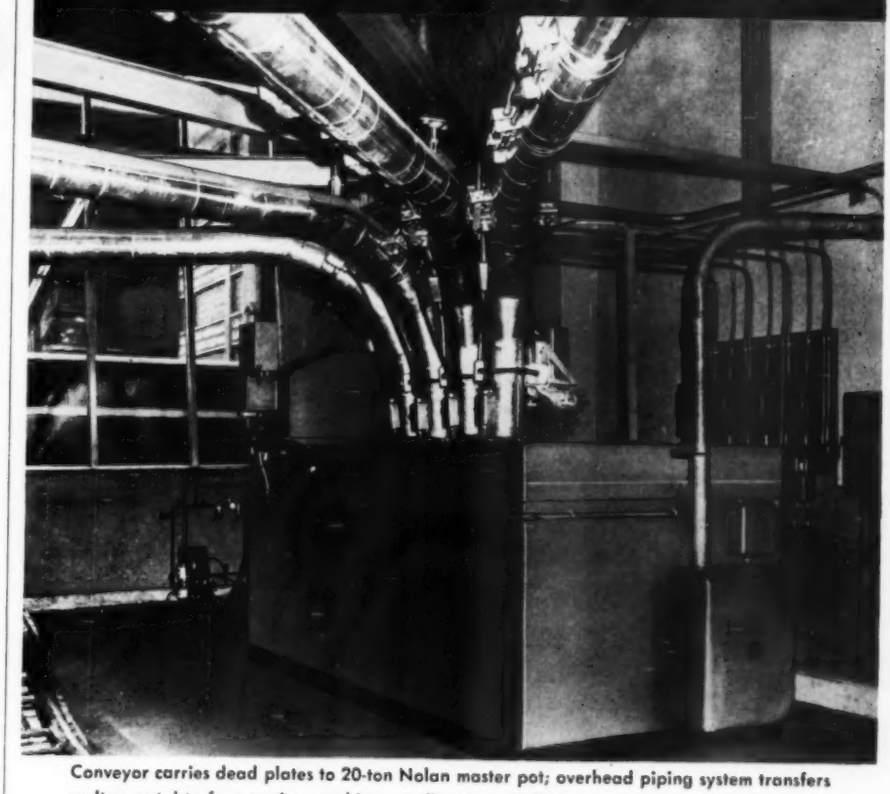
PHOTOTYPOGRAPHICAL MACHINE

In a film magazine for a tape operated phototypographical machine, such as that disclosed in patent 2,845,012 in which a pair of punches act to perforate the film at the end of the line and then advance the film, the need of arresting the feed of the control tape through the machine is eliminated. This is done by making the mechanism which controls the advance of the film responsive to a code signal on the control tape. Thus, one mechanism is used to advance the film and a separate mechanism is used to move the punches serving simply to arrest the advance of the film. No. 2,959,111 by Richard K. Walker, assignor to Mergenthaler Linotype Co.

TYPE REVISING MEANS

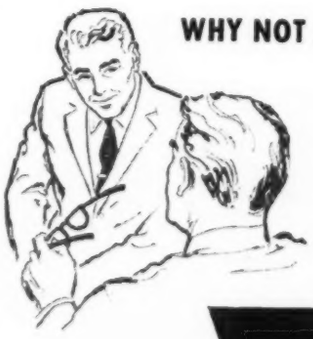
With work similar to preparation of telephone directories, in which retainable and removable lines of type are arranged side by side on edge, the revision can be effected by placing a column of type on a plane surface, clamping the type by lateral pressure, lifting the removable lines to a plane above the retainable lines, gathering the removable lines for disposition and releasing the lateral pressure on

NOLAN MASTER POT AT "LA PRESSE"



Conveyor carries dead plates to 20-ton Nolan master pot; overhead piping system transfers molten metal to four casting machines — *all automatically!*

Plate casting at Canada's largest daily, Montreal's La Presse (300,000 circulation in four editions, averaging 64 pages) is no small task... and a special Nolan molten metal transfer system permits production of as many as 800 plates a day, reports Roger Marchand, La Presse's Directeur de la Production. From plate loading to transfer of molten metal, it's a completely automatic operation — savings in time, higher efficiencies, new convenience!



WHY NOT ASK THE NOLAN MAN TO CALL ON YOU?

He's an expert on remelt systems . . . large, small, and in-between. You'll find his suggestions make sense, the visit well worthwhile. A letter or phone call will bring him to you.

NOLAN Corporation
ROME, N. Y.

For More Information Circle 214 on Reader Service Card

the retainable lines. No. 2,961,246 by James S. Schwartz and Gunnard E. Stark, assignors to R. R. Donnelley & Sons Co.

KNIFE BLOCK TO TRIM SLUGS

For matrix setting and linecasting machines in which the lines are trimmed on both sides during ejection, this invention provides one common operating lever for clamping and release of the knife block slide and for adjusting the particular point size. The lever is hand operated and is rockable in two planes for accomplishing the adjustments. No. 2,961,089 by Karl Debus, assignor to Linotype G.m.b.H.

Platemaking:

DIAZO COMPOUNDS FOR PLATES

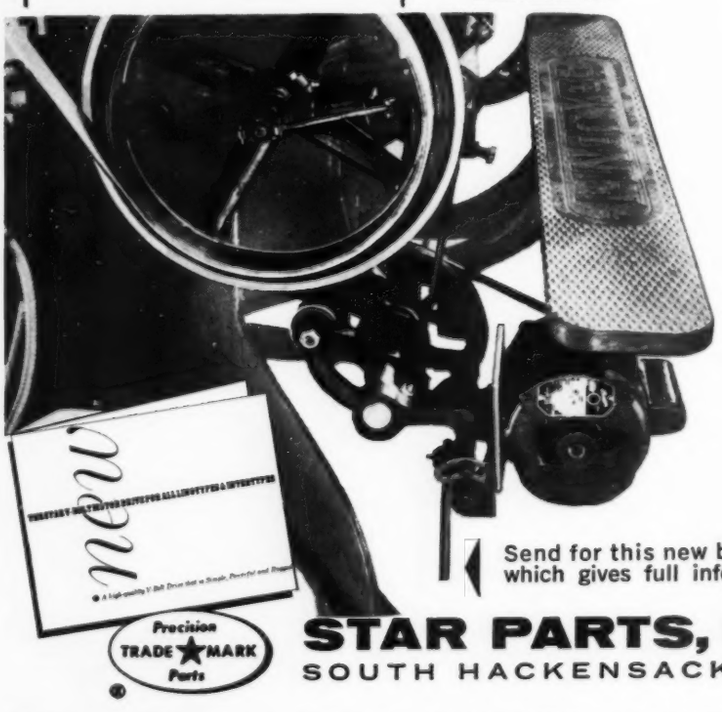
Invention is based on the fact that the behavior of water insoluble quinone-diazides when treated is different from the behavior of their light transformation products in particular with respect to the adhesion to the base material. On exposure to actinic light the quinone-diazides are believed to turn into carboxylic acids of five-membered carbocycles. No. 2,958,599 by Wilhelm Neugebauer, assignor by mesne assignments, to Azoplate Corp.

A Long Life V-Belt Motor Drive by Star!

Designed for compactness, long life, and operator safety, this replacement unit can be installed without difficulty on any model Linotype or Intertype. It is safely mounted where feet cannot contact moving pulleys or belts. The enlarged belt contact on the driving pulley, provided by a special idler pulley, means more power delivered to the machine.

The STAR Drive Features:

- A variable speed pulley that can be locked at any desired speed.
- An adjustable motor support that provides vibration-free operation.
- Uses the same endless V-belts for all speeds.
- Greater belt contact area means greater transmission power.
- A premium capacitor motor means longer life and reduced maintenance.



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PLANOGRAPHIC PRINTING

An applicator which is manually operable and which is made up of a sponge covered by a tricot knitted fabric is designed to control the amount of etch applied initially to lithographic plates to render the plates ink-repellent. The sponge retains the etch solution and the knitted fabric is lint free. No. 2,958,146 by Charles H. Van Dusen, Jr. and Francis R. Howe, assignors to Addressograph-Multigraph Corp.

FILTER ELIMINATES MOIRE IN RESCREENING PICTURES

The filter is useful for eliminating the moire appearance produced in rescreening portraits and the like in photoengraving work. The filter is used with an imaging lens and is made up of a transparent support with a plurality of discrete mutually spaced spots of transparent film, the spots being of a thickness of the order of the wavelength of the light to pass therethrough. No. 2,959,105 by Kazuo Sayanagi, assignor to Canon Camera Co., Inc.

LIGHT SENSITIVE MATERIALS

These light sensitive materials are designed for use in photomechanical reproduction in preparing plates for lithography, planographic printing and the like. The light sensitive materials can be sensitized with compounds belonging to the category of diazo ketones, such as the diazo ketone of 1-naphthoic acid, the diazo ketone of anthraquinone-2-carboxylic acid and many others. No. 2,959,482 by Wilhelm Neugebauer, Oskar Sus and Fritz Endermann, assignors, by mesne assignments to Azoplate Corporation.

PREPARING ART COPY

The method is adapted for producing a negative from which a printing plate is prepared, suitable for producing advertising or illustrative material in color. The negative is formed of a suitable transparent or translucent material having cup-like depressions. The amount of ink applied to the cups varies the size of the dots produced upon the negative and the printing plate. No. 2,959,484 by Walter S. Marx, Jr.

MAKING SCREENED POSITIVE FOR PRINTING PLATES

A feature of the invention is the provision of a screened positive film or plate which combines the best features of a conventional photogravure lined screen and a regular reverse halftone screened positive. The form has cells of a pattern similar to a form made with a conventional photogravure lined screen. The cells are all etched to the same depth and the cell walls are of a thickness not less than the thickness of cell wall obtained with a conventional lined gravure screen. No. 2,961,315 by Robert W. Stirling, assignor to Thos. & Geo. M. Stone, Inc.

GENERATING FACSIMILE SIGNALS

The apparatus is designed for improving the synchronizing characteristics of signals

representative of scanned copy material such as pictures or printed matter. In one aspect, the method involves the preliminary step of generating a facsimile signal which includes a picture portion in black phase and a sync pulse in white phase. No. 2,962,549 by Richard E. Fricks, assignor to Alden Products Co.

PLATE STORAGE APPARATUS

For filing printing plates and stencils, the apparatus takes the form of a cabinet with a bar extending across the top and from which the plates or stencils can be hung. Hooks are mounted on the bars for insertion through one of a plurality of apertures in the top of a record or file card which can be adhesively attached to the plates. The card is intended to carry information relating to the contents of the plate or stencil. No. 2,962,335 by Harold R. Benson, assignor to nuArc Co., Inc.

Feeding, Folding, Delivery:

PAPER TRIMMING AND PILING

The apparatus is for use in trimming stacks of paper delivered to the user in piles 3 ft. to 4 ft. high for use in sheet-fed printing presses. The apparatus is a more or less standard trimming machine with modifications for handling the stacks of paper from an overhead hoist and for controlling the operation of the machine automatically through a piling cycle. No. 2,958,431 by Frederick B. Curtenius, assignor, by mesne assignments, to Rice Barton Corp.

HANDLING SHEETS IN PILES

By means of a novel pallet, stacks of paper being fed to a printing press can be handled without hand-loading special pile boards. This is accomplished by the use of a pallet which may be loaded in the paper mill and mounted directly into feeding position with relation to the press. It is designed to provide an air film between the pallet and its support and includes a plurality of air valves in its upper surface. No. 2,958,527 by Howard J. Seel, assignor to Harris-Intertype Corporation.

SHEET FEEDING MECHANISM FOR DUPLICATORS

A stack of sheets to be fed to a press is conditioned to bring the top sheet to a constant level before being fed by a spring positioned underneath the stack to urge the stack upwards. A bail is cyclically operable and settable on the top of the stack to control the top. No. 2,960,334 by Carlo Trombetta, assignor to Ing. C. Olivetti & C., S.P.A.

WEB CONTROL SYSTEM

For feeding a web of material having two distinct thicknesses and for maintaining the junction line of the two thicknesses in a given lateral position during longitudinal feed of the web, this control uses two photoelectric cells arranged on one side of the web and two lamps on the opposite side of the web in alignment with the photoelectric cells. This arrangement cooperates with a regulator to keep the web in a desired line of travel. No. 2,961,548 by George A. Prell, assignor to GPE Controls, Inc.

WEB WINDING MACHINE

The patent features an improved riding roll for the rewind roll which is relatively free from deflection and capable of exerting a more uniform pressure on the rewind roll. The said roll is associated with a squaring device, affording a degree of resiliency for self adjustment of the riding roll to compensate for irregularities in the web. No. 2,960,277 by Henry W. Moser, assignor to Samuel M. Langston Co.

CONTINUOUS WEB FEEDING

A cardboard web being fed to a rotary printing machine is spliced by cutting the expiring roll end and the feeding edge of the new roll on oblique mating angles and abutting the two edges. The edges are secured by means of a plurality of gummed edges. This obviates a bulky, lapped joint. No. 2,961,181 by Karl Fillmann and Hermann Stephan, assignors to Firma Fr. Hesser.

SHEET DELIVERY APPARATUS

The patent features a new design for a sheet receiving mechanism of the conveyor type and as used in the two color rotary

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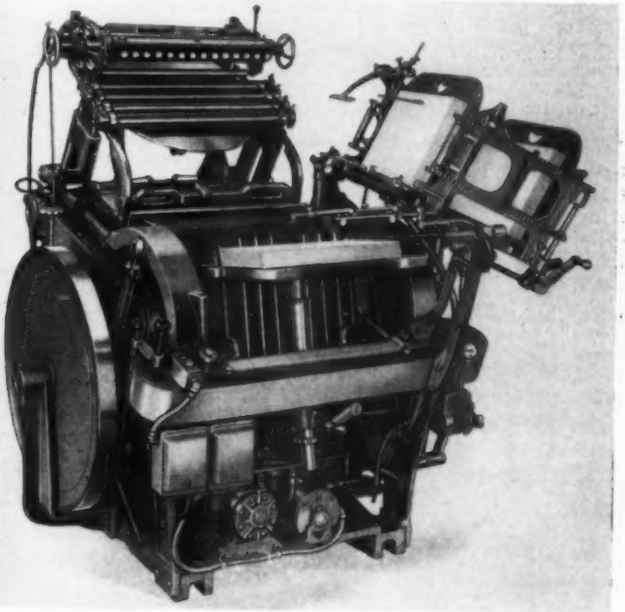
SCORE
STAMP
BLANK
EMBOSS
PRINT
on the . . .



CHANDLER and PRICE / MODEL-3
14½" x 22"
Super Heavy Duty Automatic Press

Extra rugged construction which has always been a dominant feature of Chandler and Price Super Heavy Duty Presses has been further amplified in this NEW Model-3 Super Heavy Duty Automatic Press. In addition, many new features which assure faster production and greater operating ease have also been incorporated.

These include:

- Outboard bearings for flywheel shaft attached to main frame.
- Rotary pump with separate motor.
- Automatic stop with clutch and brake.
- Platen impression control.
- Delayed action register mechanism.
- Two large diameter flywheels.
- Larger sheet.
- Faster speed.
- Constant speed motor with built in mechanical variable drive.
- Increased strength back shaft.
- Improved ball bearing delivery slide.
- Improved design feed table drive.
- Increased diameter wrist pins.
- ⅛" cutting plate—standard equipment.
- All feeder controls—left front of press.
- Gripper bar cam eliminated.
- Improved feed bar adjustment.
- Adjustable selective feed table drive.
- Elimination of crank shaft.
- Tapered sleeve type flywheel.
- Pile height feeler mechanism redesigned.

Write for descriptive circular A-119

THE CHANDLER AND PRICE COMPANY
6000 Carnegie Avenue • Cleveland 3, Ohio
Manufacturers of dependable printing presses and paper cutters

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offset sheet press of patent 2,542,867 issued Feb. 20, 1951, to Harris-Seybold Co. De. 189,385 by Viktor Schreckengost, assignor to Harris-Intertype Corp.

Printing Presses:

OBSERVING MOVING PATTERNS

Repeat patterns being formed on a high speed rotary printing press can be inspected without interruption by this instrument. This is accomplished by the use of an intermittently acting striker which returns a mirror pickup to its starting position after each scanning cycle. The striker is coupled to the web moving mechanism so that the mirror moves in synchronism with web. No. 2,958,256 by John Martin Strang and Ian Hugh Mackenzie, assignors to Barr and Stroud, Ltd.

CYLINDER FLATBED PRESS

Addressing as well as letterpress work may be performed on this press which differs from usual machines of this type in that it employs a horizontal paper supporting cylinder which is not only rotated about its own axis but is adapted for simultaneous controlled bodily movement in a path surrounding a fixed axis defined by a horizontal driven shaft to which cylinder is articulated. Stationary type is inked by an inking roller. No. 2,958,276 by Hugh Rogers McLaughlin.

AUTOMATIC MOISTURE EXTRACTOR

The extractor is designed for connection into the piping system of a compressed air line of a printing press. It is formed of top and bottom metal cast parts with a spring urged piston and suitable outlet. It has threaded connections and once it is connected into the piping of the press system, it need not be disconnected for servicing or replacement of any of the parts. No. 2,958,394 by John B. Woodmansee.

CONTROL FOR SCANNING WEBS AND SHEET MATERIAL

The system permits the control of web edge migrations by the quality of the light reflected by the web material rather than by light quantum. The light quality used refers to varying light of a determined frequency. A light source, which provides rhythmic light intensity variations, radiates its rays into the space or area in which photoelectric cells are to control the course or path of travel of a web edge. No. 2,962,596 by Albert Leimer and Ludwig Zerle.

SHEET ENGAGING ROLLS

Longitudinally curved expander rolls which have a flexible surface sleeve and often require resurfacing can be resurfaced without returning to the factory by the use of a homogeneous body of wound and overlapped soluble strip material which is applied with a solvent. The overlapped convolutions become partially dissolved and homogeneously merged in a manner to eliminate objectionable seams when the solvent evaporates. No. 2,960,753 by John D. Robertson, assignor to Mount Hope Machinery Co.

DAMPENING APPARATUS

The apparatus is designed for controlling either manually or automatically the feeding of water to a press. It is similar to the construction of patent 2,897,753. It permits a full flow of water to the press, meters the flow, and completely shuts off the supply of water when press is not operating. No. 2,960,929 by Leonard G. Erzinger.

PRINTING FORM DUPLICATION

The apparatus incorporates mechanism for removing the protective coat usually present on a lithographic printing form before its use, after which the printing foil is moistened by a moistening device and the printing form is inked mechanically during the course of operation of the machine. All of these operations are controlled by one common control device. No. 2,958,274 by Wilhelm and Gerhard Ritzerfeld.

SWING-AWAY ROLLERS

In a rotary cylinder printing press, access to the impression surface of the im-

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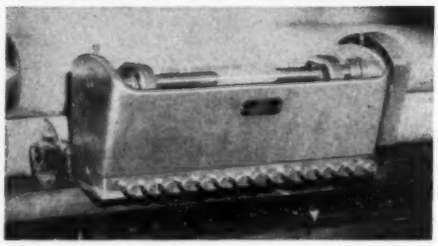
PORTABLE INK FOUNTAIN



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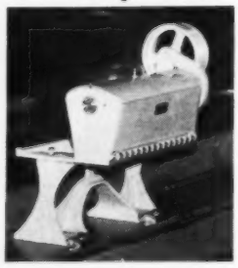

Installation on late model Goss Headliner

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pression cylinder and to the curved printing form for carrying out makeready operations has been improved by the use of a plurality of swing-away inking and application rollers. No. 2,958,275 by Artur Buttner, assignor to Schnellpressenfabrik AG Heidelberg.

GAUGE FOR REGISTRATION IN COLOR PRINTING

The gauge is useful in newspaper work such as colored comic strips in which a press operator has visually checked the matching of successive impressions. It eliminates such trial and error method by the use of a magnifying lens and a reticle mounted in vertically spaced relation with the lens, the reticle having two series of parallel indicia lines. No. 2,961,770 by Arnold L. Imshaug.

DUPLICATING MACHINE

The machine is of the type which includes a master carrying drum and mechanism for pressing copy sheets against the master as the drum is rotated in use. The copy sheets are arranged in a stack and are fed successively to the drum in synchronism with rotation of the drum. The improved feeding elements are operated intermittently during only a portion of the period of a rotation of the master carrying drum and only so long as is necessary to feed the copy to the drum. No. 2,961,947 by Edward M. Springer, assignor, by mesne assignments, to Heyer, Inc.

TENSION RESPONSE CONTROL

By means of a fluid coupling and the sensitive torque responsive slip thereof, a differential mechanism is controlled and in turn it controls a speed change mechanism through which the winding roller is driven. Since the speed change mechanism is controlled by the slippage of the fluid drive mechanism, and since such slippage is directly responsive to tension applied, an accurate and sensitive control under the influence of the load of the roller is achieved. No. 2,954,179 by Robert L. Fulghum.

DAMPER FOR LITHO PRESS

The damper may be added to typical gear driven lithographic presses without making alterations. The arrangement provides proper balance between water dampening solution and the ink and for applying the water in suitable quantities and at proper times and places to a dampening roller. No. 2,961,948 by Harry J. Quinn.

CLEANING AND CONTROLLING PAPER IN PRINTING PRESSES

Starch, fibers, dust, etc., can be cleaned from paper by means of suction without wrinkling by this apparatus. It provides a single chambered suction manifold having an elongated opening to traverse the path of paper travel. A brush is mounted in suction opening and suction varying mechanism is disposed between the powered suction unit and the nozzle. No. 2,961,952 by Charles C. Doyle and Helen Lefton, executrix of said Charles C. Doyle, deceased, assignor to the J. E. Doyle Co.

BLANKET CYLINDER SCRAPER

By means of a mechanical scraping device, made of a series of strips supported at their ends so that when the strips are applied to the periphery of a transfer

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Two authorities have pooled their knowledge in producing a technical book to cover every phase of platemaking and presswork in Graphic Arts reproduction processes.

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cylinder they conform to said surface, blanket transfer cylinders of offset presses can be maintained in a clean condition. This obviates frequent shutdowns of the press for cleaning the blanket and requires less frequent replacement of the blankets. No. 2,961,953 by Marius Mosegaard, assignor to Carl Allers Etablissement A/S.

Binding, Cutting, Perforating:

ROTARY STAPLER MECHANISM

Binding by means of staples is accomplished in a moving web of superposed stationery and in connection with a collating apparatus. Invention is based on the discovery that by operating the clinching operation much faster than the driving of the staple, the staple location can be accurately chosen. No. 2,960,696 by Donald J. Steidinger, assignor to Uarco, Incorporated.

CONTAINER WRAPPING SYSTEM

For applying wrappers to book casings, this system maintains the book casing and an adhesively coated wrapper separated until the last possible moment. It uses the book casing block in the wrapping machine as the medium for making the initial juncture of the book casing and the wrapper while simultaneously completing the operation. A combination of controls and detectors maintain the system automatically in balance so that human supervision is at a minimum. No. 2,961,931 by George W. von Hofe and Edwin K. Wolff, assignors to New Jersey Machine Corp.

PATENT SEARCHES

For Patent Research in the U.S. Patent Office, or prompt estimate on any type of search, write

INVENTION, INC.
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COUPON AND LEDGER RECORD

This preprinted coupon book and ledger sheet blank arrangement permits the combination to be prepared and assembled with a minimum of effort and with maximum accuracy. No subsequent typing or writing or punching is required. No. 2,962,302 by Richard J. Layton, assignor to The Rough Notes Co., Inc.

LOOSELEAF BINDER

Booklets having aligned marginal perforations can be bound with a helical wire binder with this machine. The machine provides for forming and cutting the wire to proper length from a spool of wire and then threading it through the leaves. When the spiral binding has been fed through the holes in the pages, it strikes a switch which operates the wire cutting and bending mechanism to release and remove the book. No. 2,961,012 by Albert Freundlich, assignor to Freundlich-Gomez Machinery Corp.

Mailing and Shipping:

DEVICE FOR ROLLING AND WRAPPING NEWSPAPERS

The device combines the action of an apron, a tripartite roller and a platen. The apron is loosely positioned on the top of the platen, and, when put into motion, the roller passes over the platen and beneath the apron, catching the newspaper and its wrapper in the fold or pocket of the apron. The device is operable at a high speed and by unskilled workers. No. 2,961,813 by Harry Edward Boehum.

Miscellaneous:

PAPER ROLL WINDER

The winder is designed for handling printed paper weighing from 50 to 5000 lbs. which must be wound upon a center shaft for storage and shipment. It makes use of a cylindrical shaft or roller and no outboard bearing is required. A releasable chuck, when opened, permits the load to be hoisted directly from the open chuck. No. 2,954,182 by Albert M. Bojanower.

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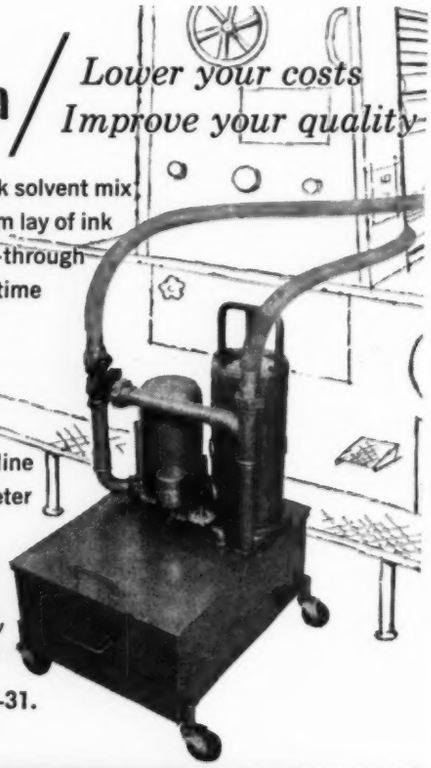

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Planning for BETTER Imposition

This book should occupy a space on the bookshelf of every production planner. Written by H. Wayne Warner of Judd & Detweiler, Inc., Washington, D. C., in concise language, the author explains the intricacies of imposition. With fifty diagrams of sheet lays and forty pages of text, the production planner will consult this handbook time and again. Tips are given on planning impositions for folders and presses, terminology, and establishing margins.

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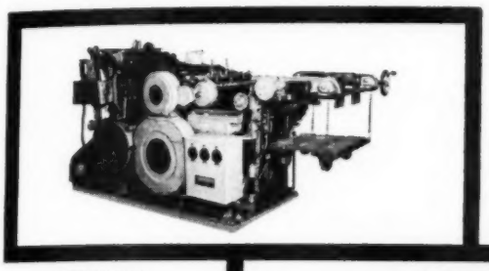
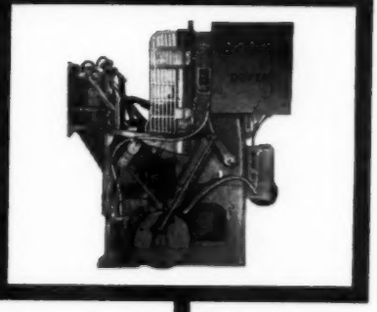
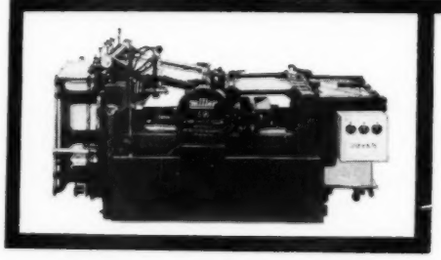


KELLY "C"



MIEHLE VERTICAL



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#67 Non Felt (Top)				X			X	X
#79 E.D. (Drawsheet)		X						
#77 Draw Sheet	X	X						
#76 Cork (Unders)			X	X	X	X	X	X
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News Items

(Continued from Page 22)

To Head *Tribune* Composing Room—Thomas Mongoven has been appointed superintendent of the composing room of the Chicago *Tribune*. An employee of the newspaper since 1920, Mongoven succeeds Fred Brohm, who died Nov. 9. He will be assisted by Fred Hemingston, former day ad foreman for the newspaper.

Trade Executive Retires—George P. Mallonee, executive secretary of Printing Industry of Washington, D. C., has announced his retirement effective Feb. 28, 1961. Having started to work in 1907 as an office boy for the late Henry Mencken, Mallonee has been with the Washington trade association since 1942.

Buhler Consolidates — Buhler Brothers, Inc., celebrates its 100th year in the flatbed rotary press business by announcing its consolidation with Englewood and Buhler Mill Engineering Co. into the newly formed Buhler Corporation. Headquarters for the new corporation will be at 4207 Nicollet Ave., Minneapolis 9.

Kleen-Stik to Become Subsidiary—Officials of National Starch and Chemical Corp. have announced the acquisition of Kleen-Stik Products, Inc., as a wholly owned subsidiary. The transaction is subject to stockholder approval.

Darby Printing Elevates Two—Darby Printing Co., Washington, D. C., has announced the elevation of O. Edward Johnson to vice president-manufacturing, and E. B. Hundley to vice president-sales. Both positions were created recently to meet increased service demands of the company. Formerly, Johnson had been manager of the manufacturing division and Hundley, manager of the sales division.

Miehle Appoints New Treasurer—J. Philip Cronin has been appointed treasurer of Miehle Company, Div. of Miehle-Goss-Dexter, Inc. He succeeds George Schultz who passed away recently. Formerly, Cronin had been assistant comptroller and assistant treasurer of the division. Appointed to the position of assistant treasurer is J. T. Carroll who has been with the firm for 25 years.

Baumrucker Joins Chas. T. Main—William Baumrucker, Jr., has joined Chas. T. Main, Inc., professional engineers of Boston. A 1930 graduate of Massachusetts Institute of Technology, Baumrucker has a background of experience in newspaper and Graphic Arts production and management methods. He has been associated with the New York *News*, Washington (D.C.) *Times-Herald*, Boston *Herald Traveler* Corp., and Photon, Incorporated.

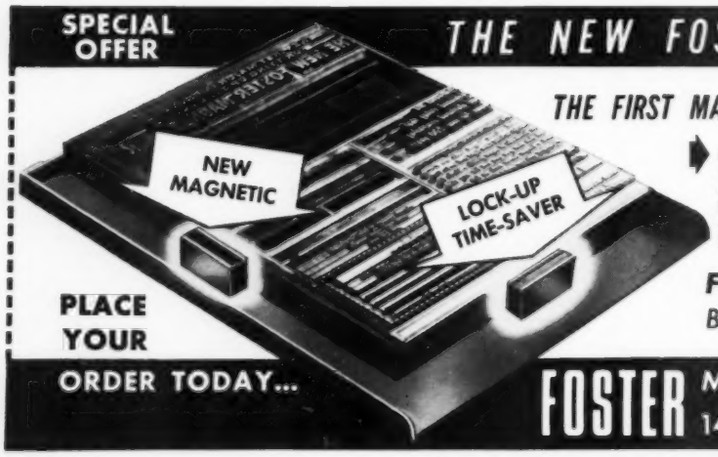
Miller Expands New York Staff—Two new sales representatives, Douglas W. Mulcahy and George E. Funkhauser, have been added to the New York staff of Miller Printing Machinery Co.

To Manage Business Forms Plant—Robert Jocham has been named general manager of the new plant of Watts Business Forms, Div. of Alfred Allen Watts Co., Inc., in Dillsburg, Pa. Formerly, Jocham served as assistant plant manager. Also appointed by Watts was Howard J. Martin to serve as sales manager in New Jersey.

West Virginia Appointment—Harold R. von der Osten has been appointed advertising and promotion manager of the Fine Papers Div., West Virginia Pulp and Paper Co. After joining West Virginia in 1957, he served as sales representative

SPECIAL OFFER

THE NEW FOSTER "MAGNET LOCK"



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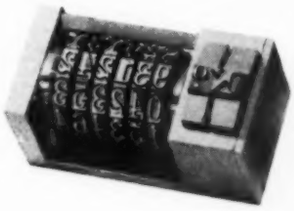
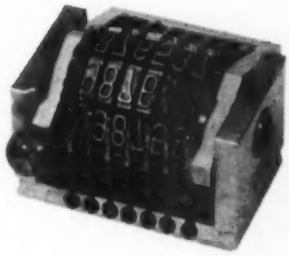


New! You use fingers only to take apart this simplified Roberts Royal type-high unit for cleaning, or replacing skip wheels.

This Roberts high-speed rotary flat base unit with convex head features a replaceable ball and pin. Also available is a straight head unit with reversible operating arm. Both in three standard bases.



Write or call Roberts Numbering Machine Division, Heller Roberts Manufacturing Corporation, 700 Jamaica Avenue, Brooklyn 8, N. Y. Telephone Midway 7-4600.

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and sales promotion manager for the Merchant Paper Sales. For the past two years, he has been advertising and sales promotion manager of Commercial Printing Paper Sales.

Firms Name Cleveland Representative—The Miehle and Lawson Companies, Divs. of Miehle-Goss-Dexter, Inc., have announced the appointment of Diamond Printing Machinery Co. as exclusive service dealer in the Cleveland area. Located at 3067 E. 61st St., the firm will also be headquarters for Johnson B. Claywell, Miehle's factory service representative.

Thomas to Direct Collator Research—W. E. Thomas has been named director of Collator Research and Development by General Binding Corp. Thomas founded Thomas Collators, Inc., in 1947 and served as its president until 1955 when he became chief executive officer of Collamatic Corporation. In 1960, Collamatic became a division of General Binding.

Varn To Open Western Plant—Varn Products Co., Inc., has announced plans to open a new plant in Oakland, Calif. According to a company official, the plant will manufacture pressroom chemicals and solvents for the Western printing industry.

Oxy-Dry Names Eastern Sales Manager—Warren G. Buhler has been promoted to the position of Eastern sales manager of Oxy-Dry Sprayer Corp. His headquarters will be at the New York office, 331 Fourth Ave. Since 1952, Buhler served the company as Southeastern representative.

BUHLER

L. HERMAN

To Manage Star Parts Agency—Lawrence E. Herman has been appointed general manager of Quido E. Herman & Co., Inc., West Coast agency for Star Parts, Inc. The appointment becomes effective April 1, 1961. He succeeds his father, Quido E. Herman, who has been named sales manager for Star Parts in the New Jersey area.

To Manage Sun's Pittsburgh Branch—Anthony V. Russo has been appointed manager of the Pittsburgh branch of General Printing Ink Div., Sun Chemical Corp. Russo has been associated with Sun for 21 years.

Fairchild Acquires Missouri Plant—Fairchild Camera and Instrument Corp. has purchased the Joplin, Mo., plant of Pacific Mercury Electronics, Inc., of Sepulveda, Calif. According to John Carter, Fairchild president, the Joplin facilities will provide Fairchild with a mid-continent electronic and electro-mechanical outlet. Manufacturing equipment of the Graphic Equipment Div. in Plainview, L. I., N. Y., is being transferred to the new plant. All other functions of the division will remain on Long Island.

Mergenthaler Production Engineers—The appointments of Clarence Kiphart and Webber L. Mason as production engineers have been announced by Mergenthaler Linotype Co. Kiphart will cover the South side and the Southern and Western suburbs of Chicago; Mason's territory will include Arkansas, Southern Missouri and Northwestern Mississippi.

Myers Elected President of Frye—Hiram A. Myers has been elected president and chief executive officer of Frye Manufacturing Co. He succeeds Marion C. Frye who has resigned for health reasons.

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Ink Conditioners

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Helpful Literature

(Continued from Page 36)

OPTICAL DEPTH GAUGES

Unitronics, Incorporated, Div. of Lanston Industries, Inc., has made available a technical bulletin in which is described and illustrated its line of optical depth gauges and inspection microscopes. Portable, the optical depth gauge is adapted to measure width of lines or dots, depth of gravure cells, and size of lithograins. With a magnification from 25X to 600X, the instrument reportedly helps study ink performance, paper structure and other pertinent data. One convenience is that the gauge may be placed directly on the workpiece whether it is flat or curved and regardless of its size. Circle No. 315 on Reader Service Card.

MATERIALS HANDLING COST CUTTING

A handbook of ideas for cutting costs in materials handling is offered by Automatic Transportation Co. Discussed in the book are the pros and cons of the following subjects: Narrow versus wide aisles, walkies versus rider-type trucks, pallet versus palletless handling and selecting the right truck for the job. Circle No. 313 on Reader Service Card.

"WHAT IS A GIRL?"

Mead Papers, Inc., has published a collector's edition of Alan Beck's essay, *What Is a Girl?* The volume is illustrated in full color, duotone, and in black and white and is meant to display a portion of Mead's line of coated and uncoated offset printing papers. Printing is done on both the wire and felt sides of the sheets. Each illustration is accompanied by production notes. Circle No. 310 on Reader Service Card.

NOLAN EQUIPMENT PRICE LIST

A price list covering its line of equipment for the Graphic Arts has been published by Nolan Corporation. In addition to listing the prices, the publication contains descriptions of Nolan equipment. Included are metal remelting furnaces, bottom pouring furnaces, scrap trucks, proof presses and cabinets, sterosaws and matrix driers. Circle No. 318 on Reader Service Card.

REVIEW OF LABORATORY INSTRUMENTS

A 16 page catalog of laboratory instruments, including pH meters and hot plates, is available from Arthur S. LaPine & Co. Reviewed and illustrated in the catalog are the features of the instruments. Other instruments described include: Junior spectrophotometers, electrobalances, thermometers, timers and recorders. Circle No. 306 on Reader Service Card.

WAUSAU PAPER SWATCHES

A book of Wausau text and cover swatches has been made available by Wausau Paper Mills Co. A general temperature conditioning chart for printing papers is included. Circle No. 325 on Reader Service Card.

WATER AND STEAM HUMIDIFIERS

Bahnson Company has prepared a catalog listing its line of water and steam unit humidifiers. The units are said to minimize static and register problems and cut dimensional changes in paper. Circle No. 326 on Reader Service Card.

PRONE GUMMED LABEL PAPER

A swatch book of Prone gummed label papers has been prepared by Mid-States Gummed Paper Div., Minnesota Mining & Mfg. Co. Reportedly, Prone gummed label paper will remain flat under most reasonable conditions of humidity. The paper is available in five colors in E. F.,

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How to step and hold Perfect Register For 1/10th the cost

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G-E PARMATIC SPEED VARIATOR

A new adjustable speed drive, the Parmatic speed variator, is the subject of an 8 page booklet published by General Electric Co. The drive features static power conversion and is recommended for paper and paper converting applications. Circle No. 328 on Reader Service Card.

SUCTION CUPS FOR VACUUM SYSTEMS

A circular describing suction cups available for vacuum systems has been prepared by William B. Rudow. Circle No. 329 on Reader Service Card.

STRAPPING TOOLS AND SUPPLIES

A new 60 page two color general catalog has been published by A. J. Gerrard & Co. Catalog is descriptive of automatic strapping machines, manually operated strapping tools, strapping, seals and accessories. Circle No. 330 on Reader Service Card.

TEMPERATURE CONTROLS CATALOG

Burling Instrument Co.'s temperature controls are described and illustrated in an eight page folder. The controls are designed for high or low temperature alarms and cutouts. They are also available from subzero to 2000 deg. F. temperatures depending on model. Circle No. 331 on Reader Service Card.

SOLID LUBRICANTS FOR INDUSTRY

A booklet explaining the advantages of solid lubricants in reducing friction has been published by Alpha-Molykote Corp. Entitled *What is Molykote?*, the booklet also discusses lubricants which are available in powder form, as greases, as resin bonded coatings and as dispersions. Circle No. 332 on Reader Service Card.

BOOKS for the PRINTING INDUSTRY

The Grand Book of Three Colour Blending

A three color reproduction guide is now available for Graphic Arts people who seek new and pleasing three color effects. Entitled *The Grand Book of Three Colour Blending*, the book has been produced in Western Germany and published by Graphic Publishing Co.

This book has been printed by letterpress and offset in one edition. It includes specimens of two color combinations with black and three colors in combinations with each other. Shown are more than 10,000 shades of color and their makeup procedure.

The book contains 51 various colors, each with an individual swatch as well as a full description of each color used. Included with each three color table are four design examples of the use of the three colors. These show comparisons between the effect of the same design using different color combinations and reproduction methods. The examples also show the effects of overprinting and screening in three color work.

The introductory section of the book contains information about printing inks, the production of posters in tempera, the choice of the most suitable type of paper and halftone screens, and many other items of interest to three color users.

The work makes it possible to find, assess, reproduce and check any required shade of color. The book is recommended for reproduction technicians, printers and designers to whom color is important and who are interested in new and pleasing effects. *The Grand Book of Three Colour Blending* from the Book Department, PRINTING PRODUCTION Magazine, 1276 West Third St., Cleveland 13, O. The book is hard bound, contains over 100 pages, measures 12 in. by 11½ in., and sells for $45.60 postpaid.

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- 26" Heavy Duty Micro Ground Balanced 30-lb. Shear
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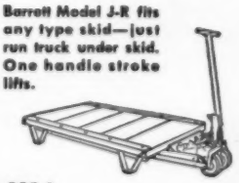

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Typesetting Time

(Continued from Page 45)

generally revises the copy, the tape can still be used to retype the okay portions. Only the new material has to be manually typed.

If the printer has an electronic character recognition machine and an electronic proofreader, or better yet a combination of the two, he will be mighty pleased with the nice copy furnished him.

Perfect Hard Copy and Tape

But if you can furnish him perfect hard copy you can also furnish him a perfect perforated tape—even if you use the tape punch only on the last typing. And if you can furnish him perfect tape as easily as perfect hard copy he will not need to invest in an enormously complex and expensive character recognition machine. He can use a tape reader, very much like the simple devices used on four or five different typesetting machines and in thousands of business offices all over the world.

If the punch and reader on the author's typewriter have not used the same codes required by the printer's typesetting machine the tape furnished the printer can be fed into a reader connected to a code converter and a rather simple computer which will accurately measure off the lines and terminate them just as would an operator. Word divisions would be made by a person monitoring several code-converter-computers. The tape product of the code-converter-computer could then be fed into a typesetting machine. The whole series of operations from author to type production has been acomplished without any repetitive manual keyboarding. For each character in the final type form *only one keyboard key has been struck*. Each character in type now being produced represents at least two and probably three to six manual key strokes by typists and compositors.

The present system of copy preparation and typesetting allows errors to accumulate and decisions to be postponed. The accumulated errors and uncertainties are dealt with on the proof of the type after it has been cast or exposed. The correction of errors and making of decisions at this point is tremendously expensive. A study made by the composition committee of the American Newspaper Publishers Assn. shows that the time required to correct an error, once it is cast in type, is 15 times as great as the time required to set the line originally.

By adopting a system of copy preparation and typesetting based on equipment which would produce hard copy and tape at each step the final proofreading could be done just before the casting in lead or exposure to film.

Predicts System Development

The system outlined above requires only equipment now commercially available plus a piece of translation equipment to convert

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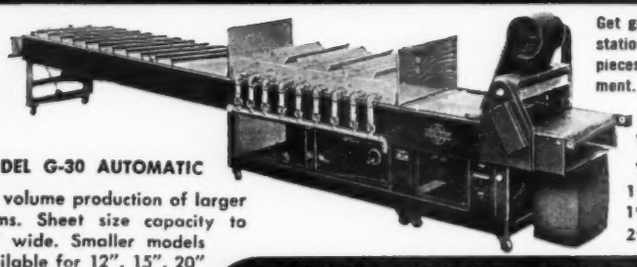

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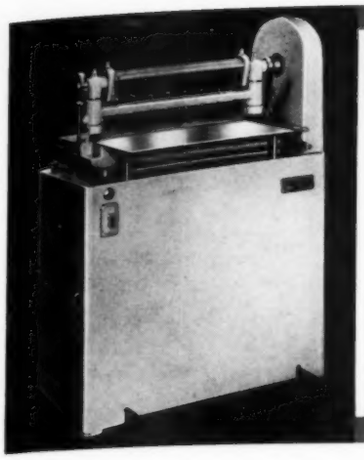

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typewriter tape to typesetting tape. The increased research and development activity in tape perforation for typesetting, both in this country and Europe, will provide such equipment very shortly.

For maximum efficiency there are several refinements to the above system which should be required. An eight-channel tape, now standard in business machines, should be adopted for both the copy preparation typewriters and the typesetting perforators. This would provide for a parity check (automatic detection of machine errors) plus a sufficient number of codes for properly controlling all the functions of a typesetting machine as well as the automatic typesetting itself.

An auxiliary reader should be provided for more efficient correcting of tape. This would permit all corrections to be perforated into a separate tape. This tape would be put in the auxiliary reader. The original tape would be used in the regular reader. The two readers would operate automatically, shifting from one to the other to automatically reproduce a corrected hard copy and a corrected tape.

For some applications such as want ads, an auxiliary punch could be attached to the typewriter keyboard so that information for the business office could be punched into a separate tape at the same time that tape is punched for the typesetting machine.

Typesetting machines should be designed to automatically detect their own errors.

Summary and Conclusions

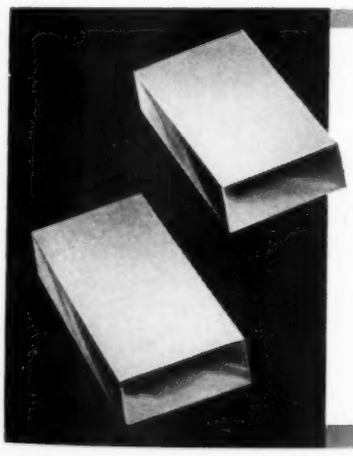
The writing of copy is a creative process. It is no more subject to automation than picture painting or moving picture making. We may someday be able to begin and end the human effort with a dictating machine. But for the present we have to accept the human habit of being more critical the nearer we get to perfection and final form.

Recognizing the need for changes and corrections as we go along we can minimize the purely repetitive operations. Notice in the flow chart how many times a human being is doing physical and mental work which could be done easier, quicker, and more accurately by a machine. Equipment is readily available for the copy preparation part of the system. Equipment will soon be available for the typesetting steps of the system. Linking the two together can be done without extra equipment if the whole system is planned with this in mind. Why make typesetting so difficult and expensive when it could be so easy and economical? ⊕

Film Tells Magnetic Ink Story

A sound-strip film in full color which depicts the story of magnetic ink character recognition is available from distributors of A. B. Dick Co. products. Entitled "Language of the Sixties," the film traces the process of imprinting checks with magnetic ink on offset equipment.

The film may be obtained by calling local distributors or by writing A. B. Dick Co., 5700 W. Touhy Ave., Chicago 48.



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ADVERTISERS' INDEX

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MELBURN O. SIMMONS, Mid-West Advertising Manager, 333 North Michigan Ave., Chicago 1, Ill. Phone: DEarborn 2-6467.

WM. A. AYRES, West Coast Representative, 233 Sansome St., San Francisco 4, Calif. Phone: YUkon 6-2981.

FRED FRISENFELDT, 1709 W. 8th St., Los Angeles 17, Calif. Phone: HUbbard 3-2777.

American Publishers Supply, Inc. 107
American Type Founders Co., Inc. 38
Ansco, Div. General Aniline & Film Corp. 27
Appleton Coated Paper Co. 103

Barrett-Cravens Co. 107
Beveridge Paper Co., New Products Div. . 94
Booth, E. A., Rubber Co. 110
Burgess Cellulose Co. 89

Capital Tool & Mfg. Co. 100
Caprock Developments 111
Carlson, Chesley F., Co. 106
Central Compounding Co. 106
Certified Dry Mat Corp. 30
Chandler & Price Co. 99
Chemco Photoproducts Co., Inc. 32, 33
Cottrell Co., The 2
Cutler-Hammer, Inc. 28, 29

Didde-Glaser, Inc. 13
Durst (U.S.A.) Inc. 12

Eastman Kodak Co. 85
Eastern Newspaper Supply, Inc. 93

Fairchild Graphic Equipment, Div. Fairchild Camera and Instrument Corp. 81
Fecker, J. W., Div., American Optical Co. 102
Flint Ink Corp. 8
Foster Manufacturing Co. 104
Force, Wm. A., & Co., Inc. 14

Goss Company, Div. Miehle-Goss-Dexter, Inc. 56, 57
Great Northern Paper Co. 71

Hammermill Paper Co. 3
Hammond Machinery Builders, Inc. .....Inside Back Cover
Harris-Seybold Co., Div. Harris-Intertype Corp. 65
HCM Corporation 11
Heidelberg Automatic Presses 9, 69
Hoe, R., & Co., Inc. 37, 101

Ideal Roller & Mfg. Co. 106
Imperial Type Metal Co. 6, 74
Interchemical Corp., Printing Ink Div. 21
Intertype Company, Div. Harris-Intertype Corp. .....Outside Back Cover

Kemp, C. M., Manufacturing Co. 83
Kenro Graphics, Inc. 10
Korthe Engineering Co. 110

Ludlow Typograph Co. 7

Main, Chas. T., Inc. 100
Master Sales and Service Corp. 87
Mergenthaler Linotype Co. 26
Midwest Publishers Supply Co. 106
Miehle-Goss-Dexter, Inc. 17, 18, 19, 20
Miller Printing Machinery Co. 23
Minnesota Mining and Mfg. Co. .75, 76, 77, 78
Monomelt Co., Inc. 109
Morrison Company 24

Nolan Corporation 97, 110, 111
nuArc Company, Inc. 16, 22

Offen, B., and Co. 110
Oxy-Dry Sprayer Corp. 67

Printing Machinery Co. 105
PRINTING PRODUCTION 4, 101, 102

Reeves Brothers, Inc., Vulcan Rubber Products Div. 103
Richards, J. A., Co. 104
Roberts Numbering Machine Div., Heller Roberts Mfg. Corp. 105
Rolled Plate Metal Co. 91
Rouse, H. B., & Co. 110

Scott, Walter, & Co. 25
Shaffstall Equipment, Inc. 108
Sheridan, T. W. & C. B., Co. 63
Sta-Hi Corporation 1
Star Parts, Inc. .....98, Inside Front Cover
Statikil 111

Tri-Q, Incorporated 82

U. S. Steel Supply Div., U. S. Steel Corp. 31
Unitronics, Inc., Sub. Lanston Industries, Inc. 15

Vandercook & Sons, Inc. 111
Virkotype Corporation 108

Wood Flong Corp. 34
Wood Newspaper Machinery Corp. 35
Worthington, Emory W., and Associates .. 111

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Mechanism of the Linotype and Intertype

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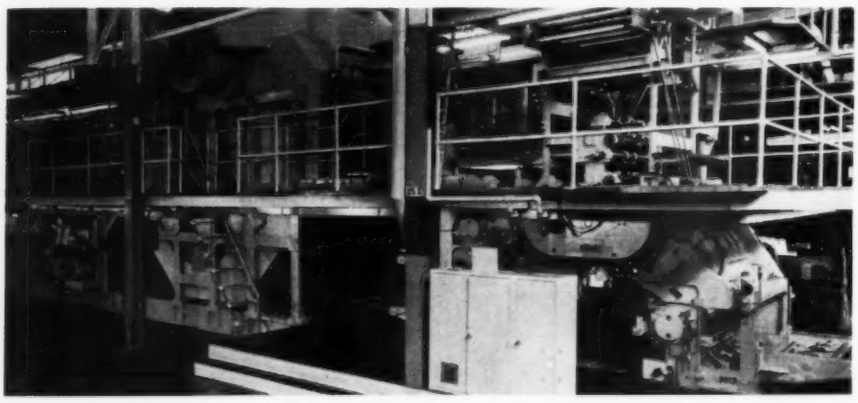
$5.50 per copy (Cash with order.) **PRINTING PRODUCTION**
(Outside U.S.A., $6.50) 1276 W. 3rd St., Cleveland 13, O.

Linofilm Used in Publishing 400 Page Book—A layout man is shown making up the title page for the National Geographic Society's new book, *Wild Animals of North America,* which is said to be the first major letterpress book ever printed using the Linofilm system. Powderless etch text engravings were also used in the book which contains 400 pages, 380 of type. All type was composed in the Society's phototypographic division which is equipped with two Linofilm keyboards and one photo unit.

Book Production Agreement—Sidney Satenstein, left, president of American Book-Stratford Press, Inc., New York book manufacturer, and Edward J. McCabe, Jr., president of Grolier, Incorporated, sign a contract assuring Grolier use of American Book's production facilities for a 10-year period.

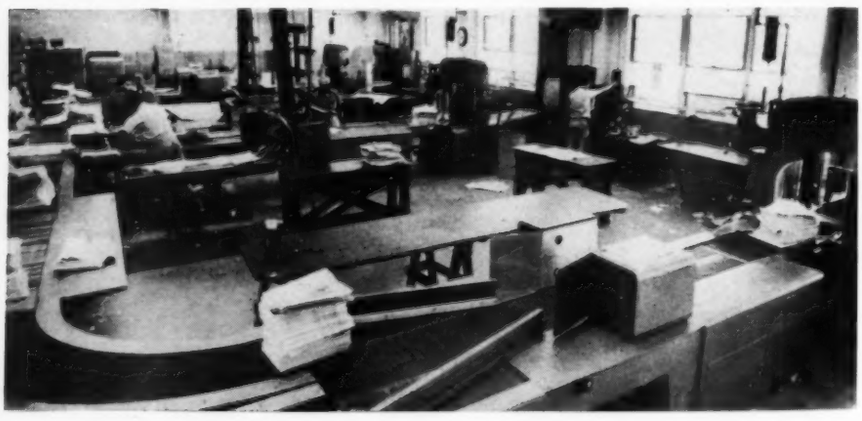
GRAPHIC VIEWS

of the Printing Industry



McCall's Installs Three Goss Magazine Presses—McCall Corporation, Dayton, O., has installed three Goss rotary magazine presses. Pictured is a Goss six and six color double ender magazine press which will be used in the production of digest size magazines.

Public Printer Speaks in Richmond — Among Raymond Blattenberger's last official appearances as U. S. Public Printer was as guest speaker at a Printing Week function in Richmond, Va. It was reported that he terminated his duties as head of the Government Printing Office on Jan. 31.



Connecticut Newspaper Mechanizes Handling System—Shown is the converging Y transfer conveyor which accepts the flow of newspapers from two conveyors in the mechanized distribution system recently installed at the New Haven (Conn.) *Register* and *Journal Courier.* Designed and built by Wiretyer Corporation, the system includes conveyors, three underwrappers, three tying machines, roller exit gates and telescoping truck loaders.

Pittsburgh Firm Expands—William G. Johnston Co., Pittsburgh's oldest printing firm, has announced its acquisition of Baird, Inc., Tarentum, Pa., rotary business forms manufacturer. Shown are Harry M. Fritz, right, president of Johnston, and John M. Baird, president of Baird, Inc. Baird will retain his official capacity even though Baird, Inc., will become a subsidiary of Johnston.

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- Less Floor Space—34" x 72".

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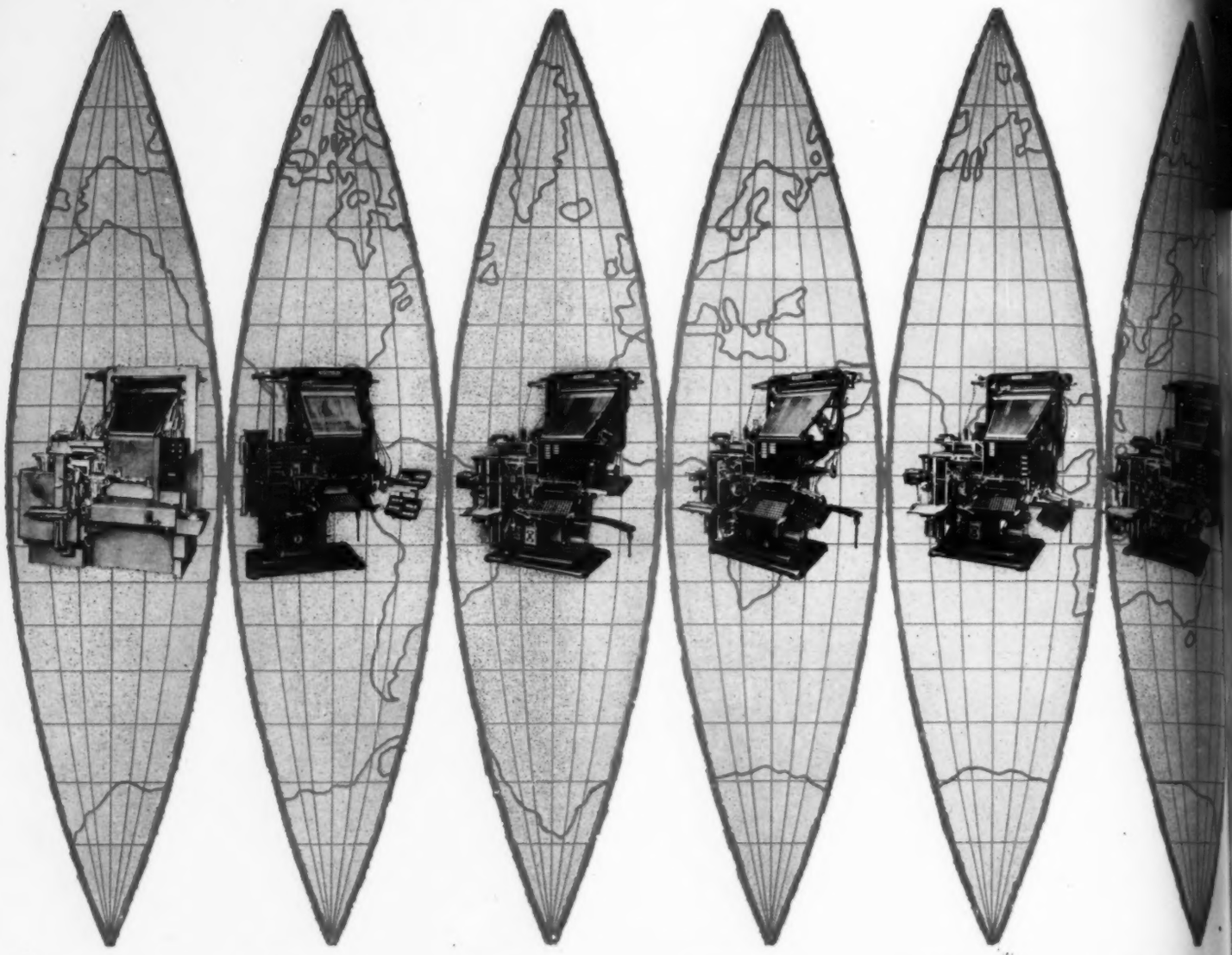

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PROFIT-MAKING MODEL F MIXER

There is no better choice for the composing room in quest of machines that produce mixed composition at straight matter speeds for books, commercial and newspaper work.

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